CHAPTER 5.0
REGIONAL AND LOCAL AGENCY COMMENTS AND RESPONSES

5.1 FORMAT OF COMMENTS AND RESPONSES AND LIST OF COMMENTERS

This chapter contains copies of the comment letters received from regional and local government agencies, listed in Table 5.1-1. Each letter is followed by responses to the comments presented in that letter. Responses to comments are numbered individually in sequence, corresponding to the numbering assigned to comments in each comment letter.

Table 5.1-1. Regional and local agency comments received on the Oroville Facilities Relicensing Draft Environmental Impact Report.

Code	Agency	Name
C0001	Butte County Board of Supervisors	Jane Dolan
C0002	Butte County	Antonio Rossmann
C0003	Plumas County Flood Control & Water Conservation District	Brian L. Morris
C0004	Plumas County Flood Control & Water Conservation District	
C0005	Sutter County, City of Yuba City, and Levee District #1	Stuart L. Somach
C0006	Butte County Air Quality Management District	Gail Williams

5.2 COMMENTS AND RESPONSES

Comment letters and responses to comments from regional and local government agencies can be found beginning on page 5-3.

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COMMENT FROM BUTTE COUNTY FOR TIME EXTENSION REQUEST FOR DEIR REVIEW AND PUBLIC HEARING

BOARD OF SUPERVISORS

ADMINISTRATION CENTER
25 COUNTY CENTER DRIVE - OROVILLE, CALIFORNIA 95965
TELEPHONE: (530) 538-7371

BILL CONNELLY
First District
JANE DOLAN
Second District
MAUREEN KIRK
Third District
CURT JOSIASSEN
Fourth District
KIM K. YAMAGUCHI
Fifth District

June 4, 2007

Henry Ramirez, Manager
Oroville Facilities Relicensing Progam
California Department of Water Resources
1416 Ninth Street, Room 1155
Sacramento, CA 95814

2007 JUN -8 AM 8:13

Dear Mr. Ramirez:

To allow Butte County to comment thoroughly on the Department of Water Resources' draft environmental impact report, the county requests a 30-day extension in the public comment period for the draft EIR.

The present period would expire on July 20, 2007, and we request that it be extended to Monday, August 20. The present comment period overlaps with county's annual budget preparation process, which requires major time commitments from all county staff, and without an extension the county will be unable to devote sufficient staff time to reviewing the draft EIR.

In addition, the County's Chief Administrative Officer has tendered his resignation, effective June 30, 2007. This position is critical to the coordination of efforts necessary to provide comprehensive comments to the DEIR and his absence will slow the County's efforts. Additional time is necessary to provide useful comments to the DEIR to ensure that DWR decision-makers have a useful and complete document upon which to base their decisions on this Project.

The county also requests that DWR schedule an additional public meeting closer to the end of the comment period. DWR presently has scheduled a hearing for June 21, a month before the present comment period closes and two months before an extended comment period would close. At the time of the presently-scheduled hearing, the county and other commenters are likely to be early in the process of reviewing the draft EIR, and many commenters will not be prepared to submit comments. DWR's presently-scheduled June 21 hearing still should occur because that hearing could

C0001-1

usefully be devoted primarily to a workshop-style presentation of the EIR. We request that to receive comments from the public, DWR provide an additional public hearing in mid-August.

C0001-1 cont.

Respectfully,

Jane Dolan
Supervisor, District 2
Chair, Butte County Board of Supervisors

cc: Butte County Board of Supervisors
Paul McIntosh, Chief Administrative Officer
Bruce Alpert, County Counsel
Lester Snow, Director Department of Water Resources
Honorable Senator Sam Aanestad
Honorable Assembly Member Rick Keene
Honorable Assembly Member Doug LaMalfa
Paul Yoder, Shaw/Yoder
Antonio Rossmann, Antonio Rossmann & Associates
Dave Owen, Antonio Rossmann & Associates
Carol Smoots, Perkins Coie, LLP

2007 JUN -8 AM 8:13

RESPONSE TO BUTTE COUNTY TIME EXTENSION REQUEST FOR DEIR REVIEW AND PUBLIC HEARING

Response C0001-1:

Time extension on review of the DEIR was granted, extending the comment period to August 20, 2007. State CEQA Guidelines Section 15087(l) states that public hearings are encouraged, but not required as an element of the CEQA process. The public hearing occurred on June 21, 2007.

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COMMENTS FROM BUTTE COUNTY

COUNTY OF BUTTE, CALIFORNIA'S COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR RELICENSING OF THE OROVILLE FACILITIES, FERC PROJECT NO. 2100

(SUBMITTED TO THE DEPARTMENT OF WATER RESOURCES)

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TABLE OF CONTENTS

INTRODUCTION

Butte County (also referenced here as "the county") appreciates the Department of Water Resources' consideration of these comments on DWR's draft Environmental Impact Report (DEIR) for future operation of the Oroville Project. As described in detail below, the county has significant concerns about the operations of the Oroville Project. Despite offering important economic benefits to other areas of the state, project operations create a substantial burden upon Butte County, and the proposed action may create additional burdens, particularly as future climatic and environmental conditions change. During this CEQA process, DWR must explore ways to ease or redress those burdens, but the DEIR does not fulfill that obligation.

In requesting mitigation of the Oroville Project's burdens, the county does not seek to undermine the Oroville Project's benefits to southern California. The county's requested mitigations would only slightly increase the costs borne by project contractors and would create few, if any, reductions in the reliability of water deliveries. The State Water Project (SWP) would continue supplying cheap, high-quality water. Butte County does wish to revise the distribution of project burdens, but even with all of those changes made, the benefit-cost scales still would tilt in the SWP contractors' favor.

The county also does not wish to denigrate the efforts of those involved in FERC's alternative licensing process, or to upset the achievements of those who through that process obtained what they believe to be improvements to project operations.[1] The county's modest demands can be addressed while leaving those gains intact. But notwithstanding the DEIR's claims that the Alternative Licensing Procedure (ALP) process was extraordinarily open and inclusive, Butte County was excluded from the settlement negotiations and has legitimate grievances that were not addressed. Its concerns deserve fair hearing and resolution through this CEQA process and through FERC's relicensing process. C0002-1

The county therefore hopes that DWR and the State Water Resources Control Board will carefully consider these comments, and will use them in developing an environmental review in conformance with CEQA, as well as an operational program beneficial to all project stakeholders, including Butte County.

[1] The county does object to the DEIR's characterization of the settlement agreement as enjoying "near-unanimous" support. Cf. DEIR, ES-4. The absence of support from the project's host county is significant, and leaves support a long way from unanimity.

GENERAL COMMENTS

Most of Butte County's comments focus on specific sections of DWR's DEIR, but the county begins by explaining a few general themes underlying all of its comments.

I. Fairness and Mitigation

Butte County's primary concern with proposed Oroville project operations is the unfairness the proposed project would perpetuate. C0002-2

The Oroville Project was constructed on the premise that it would provide statewide benefits; it never was intended to benefit southern California at its host county's expense. *See* FMY Associates, *Socio-Economic Impacts of the Oroville Facilities on Butte County, California* 2-3 (2006) (describing the promises and assurances that accompanied project approval) (attached as appendix A); Butte County, *Operational Impacts of the Oroville Project on Butte County* (2006) (hereinafter "Operational Impacts Report"; the report is attached as appendix B). Water users in the Bay Area, the San Joaquin Valley, and urban southern California were to receive reliable, high quality water, while Butte County was to receive a lasting economic boost and a valuable recreational resource. That economic boost and recreational resource were crucial to Butte County's willingness to support the project, which otherwise offered nothing to the county, and instead served primarily to flood a significant portion of the county and transfer within-county water resources to places far away. C0002-3

In practice, balance has not existed. See Operational Impacts Report, Appendix B, p. 1. Southern California has benefited handsomely, receiving abundant, high-quality water. It also has benefited from the Oroville Project' power-generation; DWR uses income from power sales to subsidize water deliveries. But Butte County's promised benefits have proven elusive. The project does serve as a recreational resource, but a free-flowing river also offered recreational value without flooding nearly so much land, and DWR has failed to build promised recreational facilities originally intended to induce Butte County residents' support. DWR has also failed to adequately manage the recreational facilities it has provided. Instead of providing an economic boost to the county, the project has served primarily as an economic drain. After an initial construction-period economic boom, the project-related jobs largely disappeared, leaving construction employees, who had housing but no work, unable to afford to leave and dependent upon the county's social services. The county remains one of the poorest and most distressed in the state, and that economic condition continues to strain the county's social service network. C0002-4 C0002-5

DWR has exacerbated those strains by refusing to fund or provide many of the government services necessary to support project operation. To mitigate the impacts those funding shortfalls otherwise would cause, the county must provide law enforcement, search and rescue, road repairs, monitoring, and other services. Without those services, the project environment would be far less safe, attractive, and secure, yet DWR does not reimburse the county. Indeed, although many of those government C0002-6 C0002-7

services support recreation, and although "the project licensee" (DWR) is ultimately responsible for the construction, operation, and maintenance of the project recreation facilities," including "arranging the funding," *see Order on Revised Recreation Plan*, 68 FERC ¶ 61,358, 62,449 (Sept. 22, 1994), DWR has declined to adequately fund or provide those services, compelling the county to step in and fill the void. With the exception of the Department of Boating and Waterways' contract with the Sheriff's Office to provide river/ lake patrol, the burden of providing services has fallen to the county. In effect, the project creates a double burden for the county: it allows profitable use of within-county resources by other parts of the state, and the county must pay to support the facilities that allow such use.

C0002-7 con't

C0002-8

In this proceeding, DWR can remedy that unfairness. In fact, to comply with CEQA, DWR *must* remedy that unfairness; a lead agency cannot forego mitigation on the assumption that other government agencies will pick up its slack. *See City of Marina v. Bd. of Trustees of Cal. State University*, 39 Cal. 4th 341, 361-367 (2006); 18 C.F.R. § 2.7 (obligating DWR to fund or provide services now provided by the county). That obligation is not onerous; DWR could meet the county's needs at a tiny fraction of the overall project costs. Moreover, the obligation is modest in comparison to the Oroville Project's net water and power benefits. For example, the Oroville Project itself uses very little of the power it produces, making the annual power benefits to DWR substantial. FERC's FEIS projects an annual project power value of $110,952,000, with annual net power benefits of $25,956,200, based upon FERC's annualized cost assumptions.[2]

C0002-9

But neither the proposed project nor any alternative project in the DEIR includes such a remedy. Instead, DWR asserts that the Oroville Project imposes an inconsequential burden upon the county, without ever acknowledging that by the same reasoning those burdens would be significantly more "inconsequential" for DWR, which has both a larger budget and a simple mechanism (inclusion in SWP water charges) for passing those costs on to the project's actual beneficiaries. To put the potential costs to the end users in perspective, if 23 million people benefit from the SWP's water supplies, as DWR has stated,[3] the cost to each beneficiary of the annual mitigation requested by Butte County ($4,560,345) to cover its minimum costs to provide services due to the Project would amount to less than 20 cents ($0.20) per end user, per year.[4] This is a

[2] FERC FEIS, Table 73, p. 356. Butte County contends that FERC has incorrectly included as an annual cost the amortization (at $16,845,200 per year) of DWR's original net investment in the Oroville Project of $231,871,326.

[3] See http://www.publicaffairs.water.ca.gov/swp/ (the State Water Project "provides water supplies for 23 million Californians and 755,000 acres of irrigated farmland").

[4] These costs, detailed in the Operational Impacts Report (appendix B), exclude other real costs to the county due to the Oroville Project, including the loss of tax revenue stemming from DWR's failure to make tax payments or payments in lieu of taxes ("PILOT" payments). The annual costs of that loss are approximately $6.87 million.

small price to pay for the benefits seen by two-thirds of the State. In contrast, the cost to each resident of Butte County of these Project-related services, based upon the latest population figures, is conservatively over $21 per year, more than a hundred times more.[5] C0002-10

In the comments below, the county explains DWR's obligations in more detail, and identifies the areas in which the EIR's current proposals are deficient. But the general theme of that discussion is simple and straightforward: DWR needs to discuss, and ultimately adopt, a project alternative that is fair to Butte County, and cannot rely on a relatively poor county to subsidize the costs and mitigate the impacts of generating substantial amounts of low cost electricity and supplying water to the State Water Project's wealthier beneficiaries. C0002-11

II. The Adverse Impacts of Preserving Status Quo License Terms

The DEIR often uses a flawed methodology for assessing project-specific impacts, and that methodology leads to understatement of impacts and frequent failures to explore important mitigation measures. C0002-12

In some sections of the DEIR, DWR appears to have measured the impacts of its proposed project by (1) identifying the ways in which new project operating rules will be different from old project operating rules and then (2) assessing the effects of those changes. It does not identify as potentially significant environmental impacts *any* impacts that might follow from perpetuating old operating rules through its new decision-making. *See, e.g.,* DEIR pp. 5.7-15 to 5.7-23 (assuming that the no-project alternative will create no impacts because old rules would remain in place). The underlying rationale, though not stated, must rest upon either a factual conclusion that there could not be any environmental consequences from a discretionary decision to re-license and re-operate the facility under old rules, or a legal conclusion that regardless of whether such impacts may exist, CEQA does not require their analysis, avoidance, or mitigation. C0002-13

The factual premise underlying this position is wrong. Reauthorizing an old operating scheme can change the environmental status quo. If the old operating scheme was causing declines in the quality of recreational resources or wildlife habitat, for example, a choice to perpetuate those rules could lead to additional harms beyond those that already have occurred. If project-related traffic was impacting local roads in the C0002-14

Appendix A, p. 18. If DWR provided compensation for those losses as well as for the service-related costs, the annual per-person cost spread among all Californians would be around 50 cents.

[5]This figure includes all county residents, even though costs are heavily concentrated in the county's unincorporated areas. If only the unincorporated areas were considered, the per-person annual cost would be approximately $50.50 ($4,560,345 divided by the unincorporated population of 90,323). Sources: U.S. Census, 2000; Claritas, 2006; California Department of Finance, 2006; Bay Area Economics (BAE), 2007.

past, a decision to perpetuate current operations will cause additional degradation in the future. And if external conditions change—if, for example, changing downstream demands lead to new reservoir release patterns within the existing rules, or a changing climate leads to new environmental vulnerabilities—the decision to re-operate the project under old rules may well create entirely new impacts. As EPA stated in its comments on FERC's DEIS, "a continuation of the existing practices may cause or contribute to significant environmental impacts." EPA, *Letter to Magalie R. Salas*, December 19, 2006, at 2. C0002-14 con't

Nor can the new impacts be attributed to the old authorizing scheme where, as here, the old license has expired, and rather than just making minor amendments within an existing license, DWR is seeking an entirely new license covering all aspects of project operation. The impacts of all license terms—not just those without equivalents in the prior license—therefore will follow from the present decision. *See ALCOA v. Administrator, Bonneville Power Admin.* 175 F.3d 1156, 1162 n.6 (9th Cir. 1999), cert den. 528 U.S. 1138 (2000) (acknowledging, in an Endangered Species Act case, that legally significant environmental consequences could follow from a decision to re-license a hydro-electric facility, even if the new license terms were *more* environmentally protective than the old). C0002-15

The legal premise underlying DWR's contraction of its analysis is also incorrect. CEQA requires agencies to measure environmental impacts by comparing impacts under the project with the environmental status quo, not by comparing impacts under the project with impacts under a hypothetical renewal of a prior license or a no-project alternative.[6] *See* 14 Cal. Code Regs. §§ 15125(a), 15126.6(e). "An EIR must focus on impacts to the existing environment, not hypothetical situations." *County of Amador v. El Dorado County Water Agency*, 76 Cal. App. 4th 931, 955 (1999). This DEIR therefore must analyze and explore ways to avoid or mitigate the environmental impacts that will follow from all of the license terms DWR presently is seeking, not just the impacts that will follow from license terms that DWR is seeking now for the first time. DWR is proposing to make a discretionary decision on all aspects of project operation, and all of those aspects may have future consequences. C0002-16 C0002-17

III. Flaws in the Methodology for Analyzing Cumulative Impacts

Because "environmental damage often occurs incrementally from a variety of small sources," CEQA requires lead agencies to consider whether their project's impacts, though individually minor, threaten to create cumulatively significant additions to the impacts of other past, present, or future projects. *Communities for a Better Environment v. California Resources Agency*, 103 Cal. App. 4th 98, 114 (2002). Where those contributions are cumulatively significant—in other words, where small contributions C0002-18

[6] CEQA does require comparison with a no-project alternative, but that comparison exists for the purpose of facilitating a choice among alternatives, not to provide a metric for evaluating what project impacts may occur or will require mitigation. *See* 14 Cal. Code Regs. § 15126.6(e).

add up to a significant overall consequence—CEQA requires agencies to treat those impacts as significant, and to describe and, if feasible, adopt measures to avoid or mitigate their project's contribution. DWR cannot avoid that obligation simply by characterizing the additional contribution as small in comparison to the overall impact; California's courts have warned that such a rationale would "contravene the very concept of cumulative impacts" and "turn cumulative impact analysis on its head." *Id.* at 117. C0002-18 con't

Some of the DEIR's analysis appears to have relied upon reasoning strikingly similar to that rejected in *Communities for a Better Environment*. Discussing government service-related impacts, for example, the DEIR concludes that even though aggregate demand for services or facilities might create a significant impact, project-specific contributions would not be "cumulatively considerable" because they are "minor." DEIR at p. 6.2-60. C0002-19

Likewise, the impacts chapter of the DEIR repeatedly concludes that the mitigation burdens imposed upon the county are insignificant because they constitute only a small increase in the county's overall budget, or are only a slight[7] incremental addition to what the county has paid in the past. *See, e.g.*, DEIR parts 5.9, 5.14. C0002-20

Instead of employing that flawed reasoning, the EIR must acknowledge that any service demand added to the prior demands created by the project constitutes a significant impact (or a significant consequence of the project's environmental impacts), and that DWR must avoid such contributions by contributing its "fair share" to mitigation programs. C0002-21

IV. The Need to Address a Changing Context

The DEIR lacks analysis of the impacts of changing climatic, social, and environmental conditions upon the State Water Project, and does not discuss how those changes may affect the environmental impacts of implementing the proposed project. That absence leaves the DEIR devoid of crucially important information about the ways in which the proposed project could affect recreation, water supplies, hydroelectric power generation, habitat protection, flood protection, and the local economy. It also leaves the DEIR without analysis of the ways such impacts, if adverse, could be mitigated or avoided. C0002-22

A. Climate Change

The DEIR barely addresses the effects of a changing climate upon the proposed project, or the environmental impacts of operating the project under different climatic conditions. These are major omissions. As DWR itself has repeatedly emphasized elsewhere, climate change is occurring and will have major consequences for water management in California, including the management of the State Water Project. Those C0002-23

[7] It is easy for DWR to characterize these increases as slight when DWR isn't proposing to pay for them. For a small, economically distressed county with a restricted ability to raise funding and expenses exceeding its means, any increase in budgetary demands is not slight at all.

consequences could affect almost every aspect of the proposed project's environmental impacts, and thus should be central to the DEIR's analysis. In fact, DWR has in other settings stressed the necessity of considering such impacts. But this DEIR provides only a cursory analysis, and its reasons for not providing a genuine climate change analysis are flatly inconsistent with DWR's own record of statements on this subject. C0002-24

DWR has clearly acknowledged that climate change is occurring, will have major effects on California's water resources generally and the State Water Project in particular, and must be addressed in any water supply planning study. For example:

- DWR's website contains a page entitled "Climate Change in California," which observes:

> Climate change is already impacting California's water resources. In the future, warmer temperatures, different patterns of precipitation and runoff, and rising sea levels will profoundly affect the ability to manage water supplies and other natural resources. Adapting California's water management systems to climate change presents one of the most significant challenges for the 21st century.
>
> California can improve its flexibility to cope with an uncertain water future by working to reduce water demand, increase water supply, improve water quality, practice resource stewardship and improve operational efficiency. The Department of Water Resources is committed to preparing for the effects of global warming while finding new ways to reduce its contribution to climate change.

See http://www.climatechange.water.ca.gov/. A link takes a viewer to DWR's "Climate Change Fact Sheet," which provides more specific information about climate change consequences, acknowledges that "[c]hanges in flow and lower reservoir levels may reduce power generation," and states that one of DWR's "strategies to address impacts of climate change" will be to "[a]ssess climate change effects on hydropower production." DWR also suggests it will "[r]efine projections of climate change consequences on water supply and reliability" and "[c]onduct system reoperation studies to improve reliability and maintain sufficient flood reserves."

- DWR's current water plan describes climate change's major consequences for water management:

> [a]s a result of global climate change, California's future hydrologic conditions will likely be different from patterns observed over the last century. Predictions include increased temperature, reductions to Sierra snowpack, earlier snowmelt, and a rise in sea level, although the extent and timing of the changes remain uncertain. The changes could have major implications for water supply, flood management, and ecosystem

> health.... Managing water resources with climate change could prove different than managing for historic climate variability because climate change could produce hydrologic conditions, variability, and extremes that are different from what current water systems were designed to manage; may occur too rapidly to allow sufficient time and information to permit managers to respond appropriately; and may require special efforts or plans to protect against surprises or uncertainties.

CALIFORNIA WATER PLAN UPDATE 2005 at 4-32 to 4-34. Because of the magnitude of those changes, the Water Plan Update concludes that "[s]tate government must help predict and prepare for the effects of global climate change on our water resources and water management systems." *See* CALIFORNIA WATER PLAN HIGHLIGHTS (2005). DWR has committed that it "will evaluate management responses to potential impacts of global climate change on the State Water Project and California's hydrology" and "will work with climate change experts to develop alternative flow data to help State and regional planners test potential effects of global climate change on different management studies." *Id.* at 5-16. In measuring compliance with that goal, DWR stated that it specifically would use as a performance measure its "[p]rogress in implementing of the plan responding to the impact of global climate change on the management of the State Water Project" and also would specifically consider the "[n]umber of planning studies that evaluate the potential impacts of climate change on the alternative management strategies and infrastructure they consider and select." *Id.*

- In a California Water Plan appendix entitled *Accounting for Climate Change*, DWR's Maurice Roos wrote "the prospects of significant changes warrant examination of how the State's water infrastructure and natural systems can accommodate or adapt to climate changes...." He acknowledged that "many uncertainties remain, primarily on the degree of change to be expected," but concluded that "[r]esponsible planning requires that the California planning community work with climate scientists and others to reduce these uncertainties and to begin to prepare for those impacts that are well understood, already appearing as trends, or likely to appear." The report closed by stating that "[i]t is time to try to quantify the effects of projected climate change on California's water resources. Being aware of potential climate changes should help in preparing better for an uncertain 21st century." *Id.* at 14.

  The body of the report discusses the many anticipated changes, including decreased snowpacks (an impact the report characterized as "relatively certain"; *see id.* at 5, 6 ("All models so far show less snowmelt runoff in the northern Sierra.")) and increased storm intensity. "Warmer air and less snowpack," the report states, "would be expected to raise average stream and estuary water temperatures. This would increase the problem for cold-water fisheries, including salmon and steelhead." Likewise, "[l]ess spring snowmelt could make it more difficult to refill winter reservoir flood control space during late spring and early summer of many years, thus potentially reducing the amount of surface water available during the dry season. Lower early summer reservoir levels also would adversely affect lake recreation and

8

hydroelectric power production, with possible late season temperature problems for downstream fisheries." The report proposed that some such changes should be addressed in the Oroville proceeding: "a logical extension would be to apply the new temperature models to evaluate the affect (sic) of a changed climate and runoff scenario, beginning with Lake Oroville and the Feather River." *Id.* at 13. C0002-25

- In July 2006, in response to an executive order from Governor Schwarzenegger, DWR published a report entitled *Progress on Incorporating Climate Change into Management of California's Water Resources* ("Progress Report"). Like the Water Plan Update, Appendix Report, and DWR's website, the Progress Report acknowledges that climate change is already occurring, is affecting California's hydrology, and will have particularly important effects on water storage projects. For example, the executive summary observes that "California water planners are concerned about climate change and its potential effects on our water resources. Projected increases in air temperatures may lead to changes in the timing, amount and form of precipitation – rain or snow, (and) changes in runoff timing and volume... ." Progress Report at I. After acknowledging California's heavy reliance on the State Water Project, the executive summary states:

> DWR and Reclamation have formed a joint Climate Change Work Team to provide qualitative and quantitative information to managers on potential effects and risks of climate change to California's water resources. The mission of the team is to coordinate with other state and federal agencies on the incorporation of climate change science into California's water resources planning and management. The team will provide and regularly update information for decision-makers on potential impacts and risks of climate change, flexibility of existing facilities to cope with climate change, and available mitigation measures.

Id. In a statement that provides an ironic contrast with DWR's present DEIR, the executive summary closes by assuring the reader that "DWR is working with other agencies and researchers to provide leadership in incorporating climate change impacts and risks into the planning and management of California's precious water resources." *Id.* at VII.

The body of the report contains similar statements. Chapter 2 contains a detailed discussion of the reasons for climate change and expected impacts upon California hydrology. That analysis acknowledges, among other things, that "loss of the State's snowpack will affect the operation of most major multipurpose reservoirs at low and mid-elevations in the Sierra." Progress Report at 2-31; *see also id.* at 6-31 to 6-33 (discussing changing flood risks in the Feather River Basin). It also warns that climate change will increase water temperatures, which in turn will "pose a threat to aquatic species that are sensitive to temperature, including anadromous fish. Increased water temperatures will also cause decreased dissolved oxygen concentrations in water and other water quality changes, and will likely increase production of algae and some aquatic weeds." *Id.* at 2-60. Those changes could lead

to significant consequences for reservoir management. *Id.* While the authors make no claim to know exactly how much temperatures will change or exactly where and to what extent the resultant impacts will be felt, the chapter leaves little doubt that warming will occur and that significant environmental consequences will follow.

Chapter 4 of the report is entirely devoted to analyzing climate change effects on the SWP and the Central Valley Project. It notes that historically, planning and design of those projects "assumed an unchanging climate," but cautions that "a changing climate may threaten to destabilize the infrastructure and operations dependent on that assumption." *Id.* at 4-1. The chapter then provides the results of a modeling analysis of the effects of multiple climate change scenarios upon the CVP and SWP—including discussion of effects upon water temperatures and upon Lake Oroville inflow, outflow, and storage. The authors caution that their analysis is preliminary and (like any modeling analysis) contains uncertainties and simplifying assumptions, but nowhere in the chapter do they suggest that modeling climate change impacts is a pointless exercise. Instead, the chapter and the report as a whole both indicate that DWR is aware that climate change is occurring and must be factored into planning, and that while the tools for engaging in such planning will improve, they already are available and should be put to use. "While there were limitations to our analysis," the authors concluded, "the results were nevertheless significant." *Id.* at 4-49. They also cautioned that "future studies should consider measures to relieve the negative effects of climate change." *Id.* at 4-50.

These reports all demonstrate that consideration of changing climatic conditions must be central to DWR's environmental analysis of future management of the Oroville Project.[8] DWR itself has written repeatedly that climate change is occurring and will have major effects on SWP operations—operations in which the Oroville Project, as the SWP's primary storage and power generation facility, play a central role—and that those effects constitute one of the most important and pressing issues facing the state. DWR also has repeatedly emphasized that analysis of those changes, and of potential management responses to those changes, is of crucial importance, and that the tools to conduct such analysis already exist and are improving. Such analysis ought to have been

C0002-26

C0002-27

[8] These reports are just the tip of an iceberg. The California Climate Change Center, a joint project of the CEC and the University of California, has published a series of reports, most of which identify the importance of addressing water resource impacts on climate change. *See, e.g.,* CALIFORNIA CLIMATE CHANGE CENTER, OUR CHANGING CLIMATE: ASSESSING THE RISKS TO CALIFORNIA (2006), *available at* http://www.climatechange.ca.gov/biennial_reports/2006report/index.html; AMY LYND LUERS AND SUSANNE C. MOSER, PREPARING FOR THE IMPACTS OF CLIMATE CHANGE IN CALIFORNIA: OPPORTUNITIES AND CONSTRAINTS FOR ADAPTATION (2006), *available at* http://www.energy.ca.gov/2005publications/CEC-500-2005-198/CEC-500-2005-198-SF.PDF; *see also* CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, CLIMATE ACTION TEAM REPORT TO GOVERNOR SCHWARZENEGGER AND THE LEGISLATURE (2006), *available at* http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT.PDF.

indispensable to this project, for changing climatic conditions undisputedly will impact flood control operations, reservoir storage levels, upstream and downstream flow levels, water temperatures, power generation, water quality, fisheries, flood risk, and the value of Lake Oroville and the Feather River as recreational resources. C0002-27 con't

Amid changing climate conditions, the operational changes proposed by DWR may cause impacts that would not occur under older climatic conditions, and perpetuating existing operational schemes may cause impacts not previously seen. Though analytical tools for addressing those impacts still are evolving, that is no excuse for avoiding analysis; knowledge of environmental impacts is almost always developing and changing, and CEQA requires "reasonable forecasting" even where perfect predictions are impossible. *Planning and Conservation League v. Department of Water Resources*, 83 Cal. App. 4th 892, 919 (2000) (noting the EIR's failure to provide reasonable forecasting based upon methods DWR had used elsewhere); *see also Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners*, 91 Cal. App. 4th 1344, 1368-71 (2001) (rejecting the non-analysis of an air quality problem even where no universally-accepted protocol for analysis yet existed). Discussing climate change's impacts upon the project environment, considering project alternatives that will allow fair, safe, and beneficial project operations amid changing climate climatic conditions, and finding ways to mitigate the adverse environmental impacts of operating the project under changing conditions should therefore have been central components of every chapter of the DEIR. C0002-28

Instead, the DEIR lacks such analysis. In the DEIR's discussion of the existing environmental setting, the words "climate change" barely appear, despite DWR's acknowledgment elsewhere that climate change already is occurring and already is impacting California's hydrology.[9] Chapter 5, which discusses the project's environmental effects, covers water quality compliance, in-stream habitat protection, flood control, and recreation without even considering the affect of climate change upon those areas of potential impact. The DEIR's project alternatives do not include anything designed to facilitate effective project operations amid a changing climate. The DEIR proposes no mitigation measures designed to address the environmental consequences of C0002-29 C0002-30

[9] The county has searched the document, and found that the phrases "global warming" and "climate change" are totally absent from the executive summary, chapter 1 (introduction), chapter 2 (objectives), and chapter 3 (existing facilities). Chapter 4 (the existing environmental setting) mentions climate change only in a brief discussion of greenhouse gas emissions from reservoirs. *See* pp. 4.12-7 to 4.12-8. Although the chapter purports to discuss the existing environmental setting, it does not mention the existing hydrologic changes documented in other DWR reports, and does not discuss anticipated future trends. Chapter 5, which discusses environmental impacts, also mentions climate change only on one page (5.12-3), and there only to describe Governor Schwarzenegger's executive order and AB 32. Other than briefly mentioning that hydroelectric projects provide renewable energy, the chapter says absolutely nothing about the relationship between this project's environmental impacts and climate change.

operating the project amid a changing climate. Only chapter 6, which addresses cumulative impacts, contains more than a few paragraphs about climate change, and there the EIR only recites general potential impacts without making any attempt to determine whether those impacts qualify as significant or how they might be mitigated or avoided.[10] C0002-31

The analysis also is entirely unquantified, despite DWR's work elsewhere to model climate change impacts on hydrology. The only other significant discussion of climate change appears in an acknowledgment that changes in operating rules will lead to reduced hydropower generation,[11] and in an appendix that claims, in direct contravention C0002-32

[10] The DEIR does not explain why climate change isn't even mentioned in the environmental setting or impacts discussion, and why the impacts of the project within the context of a changing climate are addressed only as cumulative impacts. Moreover, chapter 6 provides a short background discussion of climate change and promises analysis within each subsection of the cumulative impacts analysis. But the sections that follow do not meet CEQA's basic requirements. Some only promise *future* analysis of climate change; for example, on page 6.2-18, DWR states that it is working on developing a methodology to analyze climate change-related impacts on water supply, which methodology it hopes to unveil in 2010. Other statements acknowledge that climate change could affect operation of the Oroville Project, without offering any sort of detailed discussion of the extent of impacts or consequences, without considering whether the resultant impacts would be significant, and without saying anything about what measures DWR might adopt to prepare for or mitigate the consequences. *See* pp. 6.2-20, 6.2-21, 6.2-34.

[11] While DWR purports to use a present-rules baseline for evaluating environmental impacts, it does not treat this reduction in hydropower generating capacity as a potentially significant environmental impact. Yet FERC's EIS specifically notes that by generating hydropower, the project reduces the need for power from other non-renewable sources, with the aggregate result that project operations reduce greenhouse gas emissions by millions of tons per year. If DWR were genuine in its commitment to an existing-rules baseline, that change, and the consequent increase in GHG emissions from conventional power sources, could be a cumulatively significant contribution to the major impacts of climate change. But the DEIR does not even consider this possibility, or consider any way to mitigate the increased GHG emissions that could result from the changing rules.

Butte County does not advocate an existing-rules baseline, and instead believes the baseline should be the environmental status quo. See 14 Cal. Code Regs., § 15125(a) (the "environmental setting," a "description of the physical environmental conditions in the vicinity of the project" at the time the Notice of Preparation is published, "will normally constitute the baseline physical conditions" from which the lead agency measures environmental impacts). Accordingly, it does not object to DWR's apparent reluctance to treat this reduction in power generation as a source of a significant environmental impact. But Butte County does object to DWR's inconsistency. DWR cannot credibly treat slight reductions in ongoing adverse impacts as beneficial changes while simultaneously declining to address a slight decrease in a beneficial impact as an adverse change.

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of DWR's own earlier studies that contain such modeling, that climate change modeling would be "speculative." DEIR App. E at 49. The entire DEIR thus adopts what DWR's Progress Report characterized as the assumption of "an unchanging climate," notwithstanding DWR's own warning that "a changing climate may threaten to destabilize the infrastructure and operations dependent on that assumption." Progress Report at 4-1. The entire study, in other words, is predicated upon a hypothetical reality that DWR knows to be dangerously false. C0002-32 con't C0002-33

The absence of such analyses undermines the entire DEIR. DWR cannot proceed with the project as if climate change did not exist; nor can it procrastinate addressing its impacts until well after this project decision is made. Climate change will occur, and operating the project according to the proposed license terms amid changing climate conditions will create environmental impacts. The burden of some of those impacts will fall upon Butte County and its residents. For example, if the consequence of re-operation amid changing runoff patterns is a significant increase in reservoir level fluctuations, with consequent declines in water quality, recreational accessibility, and aesthetic value, and DWR has no mitigation measures in place to remedy those effects, the County's residents will ultimately bear a significant share of the burden. Likewise, as a consequence of increased weather variability and growing tensions between flood control and water supply needs, areas below Lake Oroville may bear increased risk of any consequent mismanagement of flood flows. For the EIR to serve its basic informational functions, it must identify *now*, to the best of DWR's ability, those potential impacts, and ways in which they can be avoided or mitigated. C0002-34

Butte County therefore asks DWR to overhaul its draft EIR and prepare a new draft that addresses the impacts of operating the project amid a changing climate. That new draft should address, at a minimum: (1) how project operators will balance flood protection with downstream water supply needs and will ensure that risks of catastrophic flooding do not increase; (2) how project operators will ensure compliance with water quality standards amid a warming climate; (3) how project operators will protect recreational uses of Lake Oroville and the Feather River amid a changing climate; and (4) how project operators will provide or sustain habitat protections amid a changing climate. The analysis should set forth mitigation measures that will address the potential impacts of operating the project under changing climatic conditions, and should consider how all project alternatives will function under those changing conditions. C0002-35

B. A Changing State Water Project

Climate change is not the only important but unaddressed change that could affect both the environmental context in which the Oroville Project operates and the nature and consequences of project operation. Several major downstream changes could affect the timing of releases from the Oroville Project, with consequent impacts on water temperatures and levels, habitat quality, and recreational value in the Lake Oroville area. Rather than discussing those potential impacts and finding ways to address them, the DEIR merely assumes that these impacts will not occur in the future. C0002-36

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The DEIR correctly observes that the Oroville Project is an integral and interconnected part of the State Water Project. See Wat. Code, § 12934(d). As the executive summary explains, "water stored in Lake Oroville is released from the Oroville Project to meet a variety of statutory, contractual water supply, flood management, fishery, water quality, and other environmental obligations. These contractual, flood management, fishery, water quality, and other environmental obligations are defined in numerous operating agreements that specify timing, flow limits, storage amounts, and/or constraints on water resources."[12] DEIR at ES-3. Those constraints include DWR's obligation to release sufficient water to comply with Bay-Delta water quality standards; its obligation to release water at temperatures and in amounts sufficient to satisfy obligations under environmental laws like the Clean Water Act and federal and state Endangered Species Acts; and its commitment to release water, as available, to meet the needs of its contractors. *See* DEIR at p. 2-5. In short, operation of the Oroville Project is closely tied to downstream needs. If those downstream constraints change, or if DWR discovers that operational changes are necessary to meet existing constraints, changes to the Lake Oroville release schedule are likely to follow.

Though the DEIR provides little analysis on the subject, those downstream needs, and the extent of downstream deliveries, are extremely likely to change. For example, DWR is presently studying a project designed to facilitate increases in the amount of water extracted from the Bay-Delta, a change that would likely necessitate alterations in the Lake Oroville release schedule. *See South Delta Improvements Program, at* http://baydeltaoffice.water.ca.gov/sdb/sdip/index_sdip.cfm. As DWR has characterized the South Delta Improvements Program (SDIP), it is foreseen as C0002-37

> a series of proposed actions that improve water quality and protect salmon in the southern part of the Sacramento-San Joaquin Delta while allowing the State Water Project to operate more effectively to meet California's existing and future water needs. The SDIP has a two-stage decision-making process: a) Stage 1 addresses the physical/structural improvements proposed in the SDIP. This includes the new operable gates, dredging and agricultural modifications. b) Stage 2 addresses the proposed operational component to increase water deliveries south of the Delta, and begins after the Stage 1 decision is made..

See http://baydeltaoffice.water.ca.gov/sdb/.

In addition, DWR has predicted that future average SWP deliveries will be substantially higher than average deliveries have been in the past. DWR, THE STATE

[12] The next sentence assures that the "Proposed Project is consistent with these existing commitments and no changes to the contractual obligations or to the general pattern of these releases are anticipated." DEIR at ES-3. As discussed below, the latter part of that assertion contains a highly debatable assumption that at a minimum should be justified by detailed analysis.

WATER PROJECT DELIVERY RELIABILITY REPORT 2005 (2006) (2005 Reliability Report); http://baydeltaoffice.water.ca.gov/swpreliability.[13] Notwithstanding public criticism regarding its application of the CALSIM II model to these reliability estimates, DWR has continued to utilize these figures. *Id.* at 15-22. DWR's sequel to its 2005 Reliability Report is due to be prepared this calendar year.

Moreover, the extent of SWP deliveries may be affected by DWR's review and decision-making on the Monterey Amendments to the State Water Project contracts. The Monterey Amendments, according to DWR, are "intended to significantly revise the complex SWP contracts, written more than 30 years ago." See http://www.des.water.ca.gov/mitigation_restoration_branch/rpmi_section/projects/index.cfm. DWR is presently preparing a program EIR addressing the environmental impacts of the Monterey Amendments in response to *Planning and Conservation League v. Department of Water Resources*, 83 Cal. App. 4th 892, and a 2003 settlement agreement following that court ruling, which elaborated on DWR's lead agency duties. http://www.des.water.ca.gov/mitigation_restoration_branch/rpmi_section/projects/index.cfm (providing background, water supply contracts, settlement agreement, notices, and correspondence). According to DWR's 2003 Notice of Preparation, DWR's "Monterey Plus" EIR will "evaluate the potential environmental impacts of changes to SWP operations that are a consequence" of the Monterey Amendments.

Concerns about endangered species protection recently have led to significant and opposing changes in export patterns, and to speculation that DWR may be unable to sustain present operations. *See* Matt Weiser, *Delta Backup Plans Mulled; If Pump Shutdown Continues, More Drastic Action to Allow Water Deliveries Will Be Needed*, SACRAMENTO BEE, June 7, 2007; Juliana Barbassa, *State Halts Key Water Pump to Protect Endangered Delta Smelt*, Associated Press, May 31, 2007 (quoting director Snow: "If we don't fix the Delta, this is going to start happening every year.") The only present points of consensus seem to be that there are deep tensions among the purposes for which the SWP is managed, that the existing system does not adequately meet either environmental or consumptive needs, and that some comprehensive overhaul of SWP management will be necessary. As DWR's director recently put it, "the Delta is broken and needs to be fixed." *DWR Stops Pumping to Protect Delta Smelt*, May 31, 2007, *at* http://www.publicaffairs.water.ca.gov/newsreleases/2007/053107pumping.cfm. DWR currently is in the process of examining such alternatives through its Delta Vision process, and other reports have proposed major changes in the way the Bay-Delta is managed.

[13] "Water delivery reliability" means "how much one can count on a certain amount of water being delivered to a specific place at a specific time." 2005 Reliability Report, p. 3. In the 2003 settlement agreement arising out of *Planning and Conservation League v. Department of Water Resources*, 83 Cal. App. 4th 892 (2000), DWR agreed to provide biennial reliability reports intended to provide "an assessment of the existing delivery capability of the SWP over a range of hydrologic conditions." 2005 Reliability Report, *op cit.*, p. 1.

The resultant changes in downstream needs are likely to change demands upon the Oroville Project, with potential changes in storage and release schedules, and Butte County is concerned that those changes will be made to serve in-Delta and Southern California needs and without regard to impacts at Lake Oroville and in the Feather River downstream. The contrary prediction provided in the DEIR—its assertion that release schedules will not change because the new license is designed to be consistent with downstream obligations—is not reassuring. *See* DEIR at pp. ES-3, 5.2-14 ("The SA was structured so as not to affect the SWP's ability to meet future water supply needs."). If those downstream needs are changing, as almost everyone acknowledges they are, consistency implies that upstream changes will follow. C0002-38

The DEIR therefore must analyze the potential consequences of reauthorizing the Oroville Project under these potentially changing circumstances, and must consider what impacts will occur in the Lake Oroville area should downstream needs and changes in SWP deliveries necessitate changes in upstream management. Consistent with DWR's CEQA obligations, the DEIR also must explore measures capable of ensuring that changing downstream needs do not result in adverse environmental impacts in the project area, or should describe measures capable of mitigating those impacts. The county does not expect DWR to look into a crystal ball and predict exactly what the future management system will be; it understands the complexities of SWP management, and asks DWR only to analyze the foreseeable range of possibilities. In doing so, the county requests that DWR to engage in the "reasonable forecasting" that CEQA requires. See *Planning and Conservation League*, 83 Cal. App. 4th at 919; *Berkeley Keep Jets Over the Bay Committee,* 91 Cal. App. 4th at 1368-71. C0002-39

By contrast, it is unreasonable to simply assume, as the DEIR has done, that future downstream needs will be the same as they have been in the past and will create no pressure for changed upstream operations, and to decline to even analyze the impacts of the project under a range of potential changed-operation circumstances, even as DWR is warning the state that comprehensive downstream changes are necessary. C0002-40

SPECIFIC COMMENTS

I. Comments on the Executive Summary

A. The Project Objectives Should Be Revised

On page ES-1, the DEIR states that "the objective of the Proposed Project is the continued operation and maintenance of the Oroville Project for electric power generation, including implementation of any terms and conditions to be considered for inclusion in a new FERC hydroelectric license."

That statement does not express DWR's actual purposes in obtaining a new license for the Oroville Project. While power generation is one project purpose, DWR also operates the project to provide flood control and water supply benefits. Indeed, the purpose of generating power is to facilitate water deliveries; all project power revenues are used to reduce contractor payments for water. Those broader purposes are somewhat C0002-41

more accurately reflected in the objectives statement on page 2-1, which acknowledges that the project also is operated "to meet existing commitments and comply with regulations pertaining to water supply, flood management, the environment, and recreational opportunities." At a minimum, DWR should ensure consistency between its statements of objectives. C0002-41 con't

The statements also do not reflect the objectives DWR should seek to fulfill in operating the SWP. As its title implies, the "State Water Project" should be operated to provide water supply, flood control, recreational, and environmental benefits to people throughout the state, and should be operated so as to avoid creating a financial burden to any part of the state, including the county in which the project sits. *See, e.g.,* Wat. Code §§ 12930, *et seq.* Simply operating the project to generate power, meet water supply commitments, and avoid regulatory non-compliance is not enough. Butte County therefore requests that DWR amend its statement of objectives to reflect those broader purposes. C0002-42

B. The DEIS Cannot Assume that Release Schedules Will Not Change

On page ES-3, the DEIR asserts that because the proposed project "is consistent with existing commitments" to supply water and meet environmental objectives downstream, no change to release schedules is anticipated. As discussed above, the conclusion does not follow from the premise. If downstream environmental requirements change, or if upstream hydrology changes, consistency with downstream commitments could produce a very different set of release schedules. Throughout its analysis, the DEIR should address that possibility. C0002-43

C. Support for the Proposed Project Is Not "Near-Unanimous"

On pages ES-3 to ES-4, the DEIR describes support for the proposed project, which it characterizes as broad and "near unanimous." That characterization is not accurate. C0002-44

The project is not supported by its own host county, and Butte County is the elected political body representing the people who live on a daily basis with the environmental and economic effects of the Oroville Project. Plumas County also has expressed strong reservations, meaning that the counties who supply nearly every drop of water that flows through Oroville Dam are both absent from the project's group of supporters. It also has received no support from water districts within Butte County; Native American tribes have expressed opposition; and many individuals have communicated their opposition to the project and support for Butte County. Under such circumstances, support cannot credibly be considered "near-unanimous."

D. Other Executive Summary Assertions

Because the statements in the executive summary (and in the introduction) generally summarize assertions made in more detail in specific chapters of the EIR, the county's remaining comments pertain to those specific chapters.

II. Comments on Chapter I (Introduction): The DEIR Misuses Incorporation By Reference

In the introduction, DWR provides a list of over 100 studies developed during the licensing process. It states that those studies are "incorporated by reference as though set forth in full as part of the text of the DEIR." DEIR p. I-10. In other words, the DEIR purports to include, without reproduction, over 100 additional studies. That approach does not meet CEQA's requirements. C0002-45

The core purpose of an EIR is to make accessible the information decision-makers and the public need in order to reach an informed decision about a project. A reader therefore must be able to see the key analyses in the EIR document itself, and relegating key details to appendices, attachments, or documents on file elsewhere does not suffice. *See Vineyard Area Citizens v. City of Rancho Cordova*, 40 Cal. 4th 412, 442 (2007) ("'Information 'scattered here and there in EIR appendices,' or a report 'buried in an appendix,' is not a substitute for 'a good faith reasoned analysis…' ") (quoting *California Oak Foundation v. City of Santa Clarita*, 133 Cal. App. 4th 1219, 1239 (2005) and *Santa Clarita Organization for Planning the Environment v. County of Los Angeles*, 106 Cal. App. 4th 715, 722-723 (2003).)

That purpose is not satisfied if key information is contained in over 100 different documents, none of which are actually attached to the DEIR. A reader cannot reasonably be expected to piece together analysis from so many disparate sources. Indeed, even if those sources were attached, the DEIR would likely be thousands of pages in length, and still would be impenetrable.

Of course, DWR can cite these documents as information sources relied upon in drafting the DEIR. It can point readers to those documents as sources of additional information. It can quote, paraphrase, or otherwise reproduce within the DEIR the key analyses from those documents. But it cannot assert that over one hundred additional documents are part of the DEIR. C0002-46

III. Comments on Chapter 2 ("Objectives, Scoping, and Support for the Proposed Project")

A. Providing Net Benefits to All Areas Affected By the Project Should Be a Project Objective

Although the DEIR lists power generation, which benefits the SWP's contractors, and water supply, which also benefits the SWP's contractors, as project purposes, it does C0002-47

not include any project purpose designed to ensure that a net project benefit from the project accrues to Butte County, or to the broader region from which the SWP obtains its water supply. Because of CEQA's mitigation requirements and because of basic fairness, the EIR should be revised to include such an objective. C0002-47 con't

B. Existing Flood Control Benefits to Butte County Are Overstated

On page 2-6, the DEIR asserts that the project supplies flood control benefits to Oroville. In section V.A of these comments, Butte County explains why that assertion is not correct, and the project in fact heightens flood risk to areas in Butte County. C0002-48

C. The EIR Should Not Include an Unbalanced "Support for the Proposed Project" Section

On pages 2-16 to 2-21, after repeating the inaccurate assertion that the project enjoys "near-unanimous endorsement" and including a paragraph promoting the settlement agreement, the DEIR includes a list of the parties and individuals who support the settlement agreement. The section of the DEIR says nothing about parties, including Butte County, multiple water districts, multiple Native American tribes, and dozens of individuals, who have expressed reservations or opposition. There are multiple problems with that approach.

First, it is completely unbalanced. If DWR includes a "support for the project" section, it also should include an "opposition to the project" section. Otherwise, the section cultivates—probably deliberately—a false impression of unanimity, misleading readers into thinking that support for this project is overwhelming. Including such a promotional section is inconsistent with the basic CEQA principle that "[a]n EIR is not a document of advocacy but of information." *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus*, 27 Cal.App.4th 713, 738 (1994). C0002-49

Second, it is superfluous. Neither CEQA not its implementing regulations calls for a "support for the project" section of a DEIR, probably because providing such a list has little to do with explaining the environmental impacts of a project. Butte County is not aware that providing such sections is standard practice, either for DWR or other CEQA lead agencies. Butte County also doubts that DWR routinely provides lists of parties *opposed* to DWR's projects (if DWR has done so, Butte County requests that DWR provide examples), and if DWR does not provide that balance, there is no justification for including a section on parties in support.

Butte County therefore requests that the section be removed. In the alternative, if DWR retains this section, it also should list every entity and individual that filed comments or spoke in opposition to the project. C0002-50

If DWR retains this section, it also should be revised to contain a balanced discussion of the settlement process. In its efforts to convey an impression of "near-unanimous endorsement," the section leaves out an important detail: the exclusion of C0002-51

parties with serious reservations about the proposed settlement agreement. For example, when Butte County expressed its opposition to certain proposed settlement terms, and in particular the failure of the proposed settlement agreement to mitigate any of the county's adverse project impacts, the county was excluded by DWR from all settlement negotiations. The EIR therefore should note not only that parties and individuals did oppose the settlement terms; it also should note that DWR chose not to include those opposed parties in the settlement process.

C0002-51 con't

IV. Comments on Chapter 3 (Description of Existing Facilities and Operations, Proposed Project, and Alternatives)

A. The DEIR's Discussion of Management of the Oroville Wildlife Area Must Be Corrected and Enhanced

On page 3.2-16, the DEIR states that the State Department of Fish and Game (DFG) is responsible for providing staff to manage and operate the OWA and for setting guidelines for public use of this area. This area had full-time staff assigned until March 1, 2004, when DFG management reassigned the staff to other state wildlife areas in response to state budget cuts. The DEIR acknowledges these cuts, and states, correctly, that enforcement of some of the rules applicable to the OWA has since been difficult.

Butte County appreciates this preliminary discussion of personnel shortages around the OWA, but that short discussion does not explain the full effects of the enforcement deficit at the OWA. The lack of a presence by DFG and Project employees in the OWA has resulted in a serious increase in crime, vandalism, and unlawful dumping activities. The cessation of regular refuse disposal service has caused piles of trash to accumulate in the area of the afterbay outlet to the Feather River. *See* Appendix B, *Operational Impacts Report* at 16–18 (describing the proliferation of dumped trash, abandoned vehicles, dilapidated facilities, and graffiti, and consequent burdens on the county). The enforcement void and deteriorated environmental conditions have attracted criminal activity, including gang activity, vandalism, and other serious crimes that endanger the public. *See id.* The crime activity in the OWA requires Butte County law enforcement to spend more time in this area and creates a "broken-window effect" that increases crime throughout the county. *Id.*

C0002-52

In past reports, DWR has acknowledged that funding limitations and personnel shortages have compromised—sometimes severely—management of project-associated recreational areas. For example, in its L-2 study report, DWR stated:

> The lack of management personnel and funding is one of the biggest challenges facing the mission of DFG in the OWA. DFG operating standards identify the need for one habitat manager for every 1,000 acres, or 12 personnel (not including wildlife protection/law enforcement or administrative staff). Currently, the 12,000 acre OWA is managed by only three habitat managers. The OWA also has no office staff to support management personnel. This condition has placed OWA management

> operations in a "crisis" mode, where emergency situations are prioritized over operational goals associated with wildlife conservation and recreation in the OWA.

L-2 Study Report, section 5.3.3.2, Existing DFG Management Conditions, p. 5-40.

The discussion also should explain DWR's obligations with respect to OWA management. The existing discussion suggests that DFG is solely responsible for managing the OWA, and for funding such management. That is not accurate. FERC has unequivocally stated that DWR is ultimately responsible for all project recreational areas, including the OWA. 68 FERC at Ordering ¶ D, p. 23 (1994). In the 1994 order that approved DWR's most recent recreation plan, FERC wrote: C0002-53

> Recreational development at the Feather River Project is a significant beneficial public use that the licensee must foster as a price of harnessing the hydroelectric potential of a national water resource. The policy of the Commission is to optimize the development of recreation at the project, taking into account, among other things, economics. Because [DWR] uses the power generated from this project to operate the downstream pumps of the State Water Project, it does not realize a cash flow from the sale of electricity. Nevertheless, it realizes significant savings from not having to purchase the power necessary to operate the pumps from other sources.

68 FERC at 62,449 (citations omitted). FERC estimated that in 1993, a "typical year," the project saved DWR $38.5 million (in 1994 dollars).[14] *Id.* at n.26; *see also id.* at n.23 (summarizing a local resident's statements about what was lost when the project was built, and about DWR's promises to make up for those losses). Accordingly, FERC stated that "the project licensee is ultimately responsible for the construction, operation, and maintenance of all required recreation facilities in and recreation areas, and for implementation of the recreation plan we are approving." *Id.* at 62,449. It added that while DWR could seek its funding in a variety of ways, including cooperative arrangements with other agencies, "Cal Water Resources is ultimately responsible for arranging the funding." *Id.*

That acknowledgment reflects governing law. Long-established FERC regulations clearly state that licensees must support recreational use of their project facilities. 18 C.F.R. § 2.7. The regulations state that FERC expects licensees to fulfill a long series of recreation-related responsibilities, including complying "with Federal, State and local regulations for health, sanitation, and public safety, and [cooperating] with law enforcement authorities in the development of additional necessary regulations for such purposes;" and providing "either by itself or through arrangement with others for facilities to process adequately sewage, litter, and other wastes from recreation

[14] FERC's 2007 FEIS estimated with the proposed project an annual project power value of $111 million. FERC FEIS, Table 73, p. 356.

facilities...." *Id.* In other words, managing litter, debris, and public safety at the OWA is ultimately DWR's responsibility.

The DEIR must acknowledge that responsibility. It should unequivocally state that DWR ultimately is responsible for the proper management and funding of the OWA and all other project-related recreation areas, including those managed by DPR, and that DWR must ensure that such management occurs, whether through its own actions or through providing adequate funding to support the work of other agencies. C0002-54

B. The DEIR Must Analyze Additional Alternatives

An EIR must contain a reasonable range of alternatives to the proposed project. *See* 14 Cal. Code Regs. § 15126.6. Those alternatives must be sufficiently diverse to permit an effective comparative analysis. The range of alternatives proposed in this DEIR is extremely narrow, however, and leaves out at least two further alternatives that must be addressed to satisfy CEQA.

The DEIR analyzes three alternatives: the no-project alternative, an alternative deriving from the ALP settlement agreement, and the FERC staff alternative, which includes some slight tweaking of the settlement agreement. *See* DEIR at pp. ES-15 to ES-16. In its analysis, the DEIR identifies hardly any distinctions between the impacts of the ALP settlement agreement alternative and the staff alternative. Except for a very small number of effects, the two seem nearly identical, and the DEIR states that they share "the same operating characteristics." *E.g.* DEIR at p. 5.2-12. For a comparison of the slight financial differences between the two, see FERC FEIS, Table 73, p. 356. For almost all practical purposes, the DEIR therefore analyzes only one alternative other than no-action. That limited set of options is not a product of necessity; as the license applicant, DWR has ample discretion to propose a range of project management schemes, and FERC likewise has broad power under the Federal Power Act to approve or require project modifications. Nevertheless, the alternatives actually discussed in the DEIR cover only an exceedingly narrow range. C0002-55

In addition to those alternatives, the DEIR must address at least two other possibilities. First, the DEIR must include an all-parties-benefit alternative, which ensures that Butte County will bear no economic burden from mitigating the project's environmental and socio-economic consequences, and which changes project management to ensure that the project provides a net benefit to Butte County as well as to the SWP contractors. Such an alternative would involve enforceable commitments from DWR to fund all government services now provided by Butte County to the project, and for DWR to provide funding to support the project-related share of upkeep of all infrastructure used by project visitors. C0002-56

Second, the DEIR should include at least one alternative designed to maintain project benefits as both California's climate and SWP operations change. That alternative would explore ways to balance upstream needs like recreation, water quality, and flood protection against downstream needs like water supply and Bay-Delta restoration, and C0002-57

would include enforceable policies and mitigation measures to ensure that upstream needs are not sacrificed as DWR responds to evolving conditions and changing downstream demands. C0002-57 con't

While DWR should develop at least once specific alternative that will remain functional amid these changing conditions, all of DWR's DEIR alternatives must adequately address both California's climate and SWP operations changes as those changes could impact the operation of the proposed project. C0002-58

V. Comments on Chapter 4 (Environmental Setting)

A. The Project Does Not Provide Flood Control Benefits to Butte County

On pages 4.2-1 and 4.2-4, the DEIR claims that the project provides flood control benefits to the City of Oroville. That is not true. The project does provide flood protection to communities in the lower Sacramento River basin, such as Yuba City, but flood risk was not a significant problem at Oroville prior to project construction.

Before the Oroville project existed, Butte County residents had taken steps to protect themselves from flooding. The Feather River and City of Oroville was heavily flooded in March 1907. "On the Feather River at Oroville, the flood height was the greatest ever observed, although it was believed that the river profile at that location had been raised since 1862 by deposition of mining debris."[15] As a result of this flood, Butte County and City of Oroville residents constructed levies along the Feather River, and floods did not happen again.

Most notably, the massive Feather River floods of 1955, which spurred the creation of the State Water Project, did not inundate the Oroville area. According to historical accounts:

> Beginning around December 22, flood conditions prevailed in the Sacramento Valley, and nearly every place reported record-breaking stages except those streams where runoff was controlled by reservoirs. Perhaps the most important flooding occurred along the lower reaches of the Feather River… a levy break on the Feather River flooded Yuba on December 24, forcing about 8,000 Yuba residents plus refugees from Marysville to seek higher ground.[16]

C0002-59

[15] U.S Army Corps of Engineers, Sacramento District, *History of Flooding and Flood Protection*, page 2-8.

[16] National Weather Analysis Center, U.S. Weather Bureau, *Monthly Weather Review*, December 1955.

> The December 1955 flood brought large flows to many locations in the Sacramento River Basin. A levee break on the Feather River caused severe flooding in the Yuba City area.[17]
>
> The floods of December 1955 were memorable not only for the magnitude of peak discharge, but for the duration of rain and the extent of the area affected. The floods of December 1955 produced peak discharges in much of the area that were in excess of any previously recorded. Flooding was particularly notable in the Klamath River on the north coast, the San Lorenzo River at Santa Cruz, the Feather River near Yuba City, the Kaweah River at Visalia, Alameda Creek in the San Francisco Bay area....[18]

C0002-59 con't

The 1955 flood provided the political impetus Governor Pat Brown needed to gain legislative approval of the bond package needed to build the SWP.[19] Called the "greatest flood on record,"[20] it drove the California legislature to create a "superagency" considered essential to carrying out the massive undertaking approved in 1951 known as "the California Water Project." The "superagency" created in the wake of the 1955 flood was the California Department of Water Resources.

The flood did devastate parts of Northern California. The levee break in Yuba City on December 24, 1955 flooded more than 3,000 homes and forced the evacuation of 12,000 people. Thirty-eight people died, and 95 percent of the city of was inundated with floodwater as much as twelve feet deep. However, the literature says nothing about flooding of the Feather River in Butte County or about any damages sustained. The levy, built subsequent to the 1907 flood by Butte County and City of Oroville residents, held.

California's 1957 water plan, published two years after the flood and shortly before voter approval of the SWP, reflected the 1955 experience. It stated that "[f]loods on the Feather River do not constitute a major problem in upstream areas, but in the Sacramento Valley floor they are the main concern and, in the past, have caused great damage and loss of life." *California Water Plan* 105-06 (1957) (Attachment D.).[21] It

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[17] *History of Flooding and Flood Protection, supra* note 15, pp. 2-9.

[18] U.S. Geological Survey, *National Water Summary 1988-89 – Hydrologic Events and Floods and Droughts*, p. 591.

[19] See Ethan Rarick, *The Life and Times of Pat Brown – California Rising*, p. 217 (2005); Norris Hundley, Jr., *The Great Thirst: California and Water, a History*, p. 280 (rev. ed. 2001).

[20] *See* Hundley, *supra* note 19, at 280.

[21] DWR has asserted in the FERC proceeding that the project provides a water supply benefit to users in Butte County, but the 1957 water plan acknowledged that

added that the SWP would provide flood protection to areas on the Sacramento Valley floor, but mentioned no need for protection of upland areas in the valley. *Id.* at 109. The water plan's maps show Oroville outside the Sacramento Valley floor region. *See id.,* Figure, Major Hydrographic Areas and Planning Groups.

In fact, by storing millions of acre-feet of water above Lake Oroville, the project introduces a risk that did not previously exist. A failure or uncontrolled spill at Oroville Dam could produce catastrophic flooding in and downstream of Oroville, and that risk did not exist prior to project construction. The reality of such a risk is illustrated by DWR's own past actions: during the 1997 flood, DWR told Butte County to evacuate its emergency operations center, which is located below the Oroville Dam and was threatened by uncontrolled releases over the spillway (the center was built before the Oroville Project were constructed). *See* Appendix B, Operational Impacts Report, at p. 51. C0002-60

The assertion that the project provides flood protection to Oroville therefore should be removed, and the DEIR should acknowledge the flood risk created by the Oroville Project. C0002-61

B. Water Quality

The county's discussion of water quality-related issues, which integrates comments on chapters 4 and 5 of the DEIR, is contained in a separate section below.

C. Land Use

The land use chapter discusses land ownership and management responsibilities within the "FERC Project boundary" and within the "study area," which is defined as the area extending 0.25 miles beyond the FERC project boundary.

The introductory discussion should clarify that under CEQA, DWR must address all environmental impacts that follow from the project, not just impacts in a "project area" defined by FERC. Butte County does not object to DWR using those boundaries to limit the scope of its discussion of landownership, but the EIR should clearly state that project impacts must be addressed even if they extend or occur beyond those lines. C0002-62

D. Recreation

1. DWR's Discussion of Use Statistics Must Be Clarified and Must Discuss the Limitations of DWR's Survey Methodology

"there are no present major problems of water deficiency within the Feather River Unit," and provided numbers indicating that water supplies in the area were about ten times higher than anticipated future needs. *Id.* at 105.

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On pages 4.7-2 to 4.7-3, the DEIR asserts that use of the Oroville Project is "predominantly local." It then adds that "[o]ver one-half of those surveyed on-site for the Recreation Surveys (SP-R13) were from Butte County, demonstrating the importance of the project to local residents."

Both of these statements create an impression that a significant majority of users come from Butte County. The results in DWR's Final Recreation Surveys Report, however, state that 53.5 percent of respondents came from within the county, which suggests that in- and out-of-county users are almost evenly split. Rather than using an imprecise qualitative description, Butte County requests that DWR use the actual number. The 53.5 percent number combines both the people living within cities located within Butte County and the people living within the unincorporated areas of the county. Elsewhere in the DEIR, DWR differentiates between those two different types of in-county residents but not here. *E.g.*, p. 5.9-12. In SP-R19 Report Table 4.4-1, "Allocation of current (FY2002-03) visitor days for assigning public services costs in the fiscal impact model," page 4-27, DWR reports the "Out-of-County Visitors Potentially Affecting" County of Butte numbered 533,130 and the "In-County Visitors Potentially Affecting" the County of Butte at 164,844, or a 76.4 percent out-of-county versus 23.6 percent in-county split. C0002-63

In its submissions in response to FERC's draft environmental impact statement, the county also pointed out that the surveys were developed using flawed methodology, and that the low response rate produced unreliable results. *See* Jon S. Ebeling and Frederica Shockley, *Response to Draft Environmental Impact Statement for Oroville Project*, pp. 4-16 (2006). That analysis is incorporated by reference into these comments. The EIR must disclose those limitations in the survey methodology. C0002-64

Butte County agrees that recreating in the Lake Oroville area is important to many county residents; the basic point that this particular section of the DEIR makes is correct. But because DWR has used those visitation calculations to support other conclusions about project impacts and mitigation responsibilities, both the results of its visitation studies and the potential errors in those results should be described as precisely as possible. C0002-65

2. State Highways Do Not Provide Direct Access to Lake Oroville

On page 4.7-3, the DEIR states that "[t]hree major highways—State Routes 70, 99, and 162—provide road access to Lake Oroville." That statement is significantly inaccurate. C0002-66

In fact, only local roads, which are primarily county roads, allow actual access to Lake Oroville, and those local roads are in turn accessible from State Routes 70, 99, and 162. While state routes 70 and 162 cross Lake Oroville, one cannot actually access any of the lakeshore recreational facilities without driving on county roads. The EIR should expressly acknowledge that every recreational visitor to Lake Oroville, whether a county C0002-67

resident or non-resident visitor, must utilize those county roads to actually reach the reservoir. C0002-67 con't

3. The DEIR Must Discuss Existing Water Quality-Related Problems with Recreational Fishing

In the DEIR's discussion of existing water quality, it notes that elevated mercury levels can lead to fish consumption advisories. The DEIR also should mention those advisories in the discussion of recreation, since many people who engage in recreational fishing eat what they catch, or at least would like to do so. *See* EPA, Letter to Magalie R. Salas, December 19, 2006, at 4 ("the Oroville Facilities provide sport fishing opportunities and thus the potential for human consumption of fish from the project area"). C0002-68

4. The DEIR Must Acknowledge DWR's Legal Responsibility to Provide, Fund, and Maintain the Project-Related Recreational Facilities

As discussed in section IV.A, DWR is legally responsible for providing, funding, and ensuring adequate management of the Oroville Project's recreational facilities, including but not limited to the OWA. The EIR should acknowledge that obligation. C0002-69

E. Population, Housing, and Public Services

The chapter of the DEIR devoted to existing population, housing, and public services should provide an accurate accounting of the actual distribution of public service responsibilities related to the Oroville Project. Instead, the discussion systematically understates the role performed by Butte County and the costs the county incurs performing that role. Much of the DEIR's discussion of burdens also is provided in highly qualitative terms. Those terms at best provide little information about actual allocation of responsibilities, and at worst create a misleading impression that the burdens borne by Butte County are inconsequential or are largely supported through payments from elsewhere. C0002-70

The specific comments that follow therefore can be summarized in one general comment: the DEIR must acknowledge that Butte County plays a major and costly role in providing government services related to the project. Absent such disclosure, readers of the EIR will misunderstand the ways in which the project actually affects local government. C0002-71

1. The County Sheriff's Office Holds Primary Law Enforcement Responsibility

On page 4.9-4, the DEIR incorrectly states that the Department of Parks and Recreation (DPR) is the primary provider of law enforcement services in the Project area, and describes the county sheriff as playing a "backup" role. In fact, the California Highway Patrol, Department of Fish and Game, Department of Parks and Recreation, and C0002-72

Butte County Sheriff's Office share law enforcement responsibilities within the Project boundaries. This joint relationship is essential because all of these law enforcement agencies are short-staffed, and some of the state agencies critically short-staffed.

Despite that joint relationship, law enforcement responsibility ultimately defaults to the county sheriff. *See* Appendix C to these comments. In California, the sheriff is a constitutional officer and the chief law enforcement officer for the county in which he or she is elected. Regardless of what agency is theoretically obliged to provide services in a given area, the county sheriff's office has ultimate responsibility for ensuring the safety of the people living in or visiting the county. In Butte County, the sheriff also serves as the coroner and is legally bound to investigate all deaths that occur within the Project area, regardless of jurisdiction. The Butte County Sheriff's Office also responds to dozens of calls for service within the project area each year from resident and non-resident visitors and from other law enforcement agencies, including the California Highway Patrol, State Parks and Recreation, and the Department of Fish and Game, requesting mutual aid. C0002-72 con't

The DEIR therefore should state that the agencies are jointly responsible for law enforcement in the project area, with the Butte County Sheriff assuming ultimate responsibility any time other agencies are unable to fulfill their responsibilities. C0002-73

2. The DEIR Overstates the City of Oroville's Law Enforcement Role

Also on page 4.9-4, the DEIR states, "[t]he Oroville Police Department has primary law enforcement responsibilities within the City of Oroville, including areas along the Feather River within the city limits." This statement is true, but has little relevance to the present EIR's discussion of the project area. C0002-74

Almost all—99.3 percent, to be exact—of the project area, as defined by FERC, lies within the unincorporated area of Butte County. The City of Oroville's involvement in law enforcement within this project area therefore is insignificant. To include the City of Oroville in the discussion of law enforcement within that area obscures the services provided by Butte County. Under California law, those governmental services are provided by the county.

Butte County agrees that Oroville does have law enforcement responsibilities related to the project. Elevated poverty levels in Oroville derive in large part from the creation of housing and boom-bust economic cycle that accompanied construction of the Oroville Project. Oroville also is impacted by visitors coming to and from Lake Oroville and the downstream recreation areas, and by the "broken window effect" that results from inadequate policing and maintenance activity at the OWA and other project areas. Those factors do affect law enforcement burdens in Oroville. The EIR therefore should discuss those factors, and should not rely on a limited conception of the project and the "project area" to avoid addressing those impacts. But so long as the EIR focuses on law enforcement only within a more limited "project area" and "study area," there is no reason to emphasize the City of Oroville's law enforcement role. C0002-75

28

3. The DEIR Incorrectly States that the County Receives Financial Benefits from DPR's Law Enforcement Activities

On page 4.9-5, the DEIR states,

> [a]ccording to DPR staff (pers. comm., Feazel 2006), DPR arrested about 80 persons in the LOSRA requiring incarceration during fiscal year 2004-05. During that year, DPR rangers also issued more than 500 citations, with a significant portion of fines from these citations going to Butte County to help defray criminal justice and law enforcement costs associated with these actions.

Because these numbers apparently derive from oral communication, Butte County has no mechanism for assessing the methodology DPR staff used for creating those numbers, or for evaluating whether the DEIR correctly summarizes the information provided. However, the statement, as paraphrased in the DEIR, misleadingly implies a much higher level of reimbursement than actually exists. C0002-76

Every arrest made by DPR compels the county to incur a series of costs, and the portion of DPR fines that Butte County actually receives does little to reimburse those costs. A majority of the eighty annual bookings referenced in DPR's response appear to be arrests for driving under the influence (DUI). According to the Butte County Superior Court, total fines imposed by state law for a DUI are $1,764. Of this total, the state receives $956, or 54 percent, and the County receives $808, or 46 percent. Of the county's total portion, $308.00 is restricted to criminal justice facility improvements and cannot be used to fund operational services and $50 is restricted to alcohol and drug programs[22]

Rather than stating the DPR fines significantly help defray costs to Butte County, the DEIR should more precisely state that those fines defray a small portion of those costs, leaving most of the cost unreimbursed. C0002-77

4. The DEIR Overstates DPR's Law Enforcement Role

On pages 4.9-5 and 4.9-6, the DEIR also discusses DPR's law enforcement role, and DWR's contribution of funding to DPR. The discussion suggests that DPR meets law enforcement needs within the areas under its control, and actually exceeds those needs by providing extra benefits to Butte County and the City of Oroville. On page 4.9-7, the DEIR adds that "DPR normally employs 11 – 13 rangers for law enforcing in the LOSRA." That is not accurate. C0002-78

[22]See Appendix D (memorandum from Andrea Nelson, Deputy Court Executive Officer); Appendix E (communication from from Mike Thompson, Senior Information Systems Analyst – Sheriff's Office, providing FY 2005-06 State Parks arrest data.).

29

In fact, park ranger staffing levels for DPR's Northern Butte District have decreased by approximately 50 percent since 1974, while project visitor levels increased by more than 45 percent during that same period. DPR has advised the county that during periods of the summer of 2006, actual staffing levels were as low as eight park rangers. That staffing level is barely sufficient to provide even one officer on patrol on a 24/7 basis. Throughout the year, including the peak season, DPR is unable to provide patrol services between the hours of 1:00 a.m. and 7:00 a.m. due to a lack of staffing. Interview with Steve Feazel, LOSRA Park Superintendent, by Robert W. MacKenzie, Butte County Deputy Counsel (April 2006). This lack of law enforcement presence creates more calls for service to the Butte County Sheriff's Office. C0002-78 con't

In suggesting that all DWR funding supports "full-time law enforcement peace officers," the DEIR inaccurately suggests that the DPR park rangers assigned to the LOSRA work full-time on law enforcement. In fact, those rangers have a variety of responsibilities, only one of which is law enforcement. The "typical tasks" of a California State Park Ranger include "professional and technical duties in State park units involving operation, interpretation, resource protection/management, patrol, safety and law enforcement, assist with program management activities, and may supervise and/or serve as a lead to seasonal and lower level permanent staff." California State Personnel Board Series Specification, State Park Ranger, *at* http://www.parks.ca.gov/default.asp?page_id=1015. Some DPR personnel have no independent law enforcement authority; Ranger Cadets, the entry level rating for the Ranger job series, do not need the certification that allows them to serve as sworn State park peace officers, and may participate in law enforcement only if supervised. Hence, park rangers assigned to the LOSRA may not be primarily focused on law enforcement. C0002-79

The DEIR therefore should acknowledge that while DWR does provide funding for DPR rangers, and while DPR does provide some law enforcement services within the project area, the level of service is insufficient to meet present law enforcement needs. Those shortages compel Butte County to provide additional support. C0002-80

The DEIR also must acknowledge that project-related enforcement burdens strain county services that already are stretched thin. In June 2005, the California Commission on State Mandates validated Butte County's need to add fifty-five Deputy Sheriff positions, eight Sergeant positions, eight Public Safety Dispatcher positions, and eight support staff positions.[23] This finding demonstrated the need for a total of seventy-nine sworn and non-sworn positions in the County. Butte County's application referenced the C0002-81

[23]California Commission on State Mandates, Final Statement of Decision (June 10, 2005). The finding of the Commission is based upon an exhaustive analysis by staff from the California Commission on State Mandates, State Treasurer's Office, Department of Finance, and the State Controller's Office. The Commission on State Mandates issued a finding of significant financial distress for Butte County for the period running from September 1, 2005 through August 31, 2006. Butte County previously received this designation in 1996 and 1999.

30

2002 Uniform Crime Report, stating that the California average ratio of sworn officers per 1,000 people is 2.77. The Commission on State Mandates acknowledged that Butte County's ratio is only 1.18 sworn officers per 1,000 people. These resource limitations are compounded when the County Sheriff's Office must respond to or assist with calls in the project area. The failure of the project to reimburse the County for providing law enforcement services results in inadequate law enforcement staffing and less protection and slower response times for County residents, as well as Project personnel and visitors. *See* Appendix B, Operational Impacts Report, at 18. C0002-82

Finally, on page 4.9-7, the DEIR purports to paraphrase statements made by DPR alleging that the Butte County Sheriff's office rarely enters the LOSRA; that the Sheriff's office "has the option to decline to respond to calls in the LOSRA;" and that the Sheriff's office allegedly did so decline once in 2006. The source for these assertions is listed as "personal communication" from DPR, and apparently no supporting paper trail exists. In its own filings, including the Operational Impacts Report, the County has documented the fact that it does often respond to security calls within the OWA and has explained that its policy obligates it to respond if another jurisdiction is unable to cover an emergency.[24] These inaccurate assertions should be removed from the EIR. C0002-83

5. The DEIR Must Acknowledge that DWR's Facility Security Contracts Do Not Provide Adequate Security

On page 4.9-6, the DEIR notes that DWR funds "a contract for $325,000 per year with a private security vendor to patrol the Oroville Project and to enhance facilities security and visitor safety."

Butte County does not dispute that this contract exists. However, the DEIR also must disclose that the Butte County Sheriff—the constitutional officer responsible for the safety of people in the project area—has concluded that DWR's current security arrangements for the Lake Oroville Dam are not adequate to protect Butte County residents and project visitors or to protect the Lake Oroville Dam itself from potential terrorist or other threats. DWR's private security guards are unarmed and often difficult to find or contact in this sensitive area. Appendix B, Operational Impacts Report, at 22. C0002-84

6. The DEIR Misstates the Costs of Providing Criminal Justice Services

On page 4.9-5, the DEIR asserts that "[t]he Butte County Superior Court is funded entirely by the State of California; therefore, cases that are processed through the superior court do not directly affect the county's budget." That is incorrect. When arrests are made on Project lands by county law enforcement or state agencies, the C0002-85

[24] The Sheriff's policy for 911 calls if very clear:

a. If it's a bona fide emergency and there is a dispute over jurisdiction, the Sheriff will always respond to the call.

b. If there is a bona fide emergency and the other jurisdiction is unable to respond, the Sheriff will always respond to the call.

arrestees may be incarcerated in the county jail, prosecuted by the county District Attorney's office, and defended by the county's Public Defender, and a court report is prepared by the county Probation Department. Following trial, the Probation Department also provides court-directed supervision to adults and juveniles. The county incurs these costs without reimbursement by the state. *See* Appendix B, Operational Impacts Report at 21.

On page 4.9-6, the DEIR asserts that "[s]tate funding for law enforcement in the project area is a public service benefit to Butte County because FERC typically does not require project licensees to provide dedicated law enforcement at project facilities." The assertion that providing partial funding for law enforcement is a project *benefit*, rather than a partial but incomplete step toward mitigation of project *impacts*, reflects a misunderstanding of the source of the need for such law enforcement. Those law enforcement services are necessary because of the Oroville Project. Absent the physical changes brought about by the project and the resultant need for policing to keep the project area safe, and absent the failure of DWR, DPR, and DFG to supply effective law enforcement to the project area, Butte County's law enforcement burden for the project area would be far smaller. By providing limited funding to support those services, the state therefore is addressing a burden created by the Oroville Project, not providing a gratuitous benefit. Moreover, because that funding only partially offsets the county's law enforcement cost, part of the burden is unmet. C0002-86

7. The DEIR's Description of Emergency Response Protocols Does Not Match Actual Practice

On page 4.9-10, the DEIR states, "DPR is primarily responsible for emergency service calls within the LOSRA, with primary backup provided by Butte County Fire Department." That statement does not reflect the reality of actual practice. In fact, Butte County Fire Department usually responds as the first responder, with notification provided to DPR. *See* Appendix F. C0002-87

When someone in the LOSRA dials 911 to report an emergency, a Primary Public Safety Answering Point (PPSAP) will receive the call. For nearly all areas of the Project those PPSAPs are either the California Highway Patrol (CHP) (for cell phone 911 calls) or the Butte County Sheriff's Office (for calls from hard-wired phones in the unincorporated area). If a call requests a fire department response (fire, medical emergency, rescue, hazardous materials spills, etc.), the call is immediately transferred to the Secondary PSAP, the Butte County Fire Department Emergency Command Center (ECC).

The ECC then dispatches the appropriate fire department response for the emergency reported. In accordance with the ECC's and DPR's current practice, the ECC notifies the DPR dispatch center located in the Sacramento area. The DPR dispatch center then notifies the on-call personnel. For 911 calls requesting an emergency response (medical aids, rescues, hazardous materials spills), the Butte County Fire Department or its co-responders are generally considered the first responder.

Accordingly, the County bears the cost of that service, whether directly or through mutual support of the co-responding agencies). If DPR or another agency is the one calling 911 requesting the additional resources, the county is not considered the first responder. However, even in that circumstance, the county still bears the costs of providing the requested emergency response.

The DEIR's description of the typical protocols for actually providing rescue, treatment, and evacuation services also should be corrected. On page 4.9-12, the DEIR states C0002-88

> DPR transports medical emergency victims on Lake Oroville to appropriate boat ramps or marina locations where accident victims can then be picked up by local ambulance firms or Enloe Hospital resources, such as the helicopter. The accident victims or their medical insurers are financially responsible for the ambulance and hospital costs.

This statement is incorrect. If a victim can only be reached by boat, DPR, another agency, or a private party will usually transport Butte County personnel to the scene of the emergency, where Butte County personnel and co-responders will provide basic medical support for the victim(s). Though the victim or their medical insurer may pay for medical transport by ambulance or helicopter, there is no reimbursement to the county or other co-responders for the basic life support services provided. In addition, while Butte County personnel are in the Oroville Project area providing these services, there may be a local community that is uncovered for fire and rescue purposes. C0002-89

Also on page 4.9-12, the DEIR states, "CDF provides funding for the Butte Emergency Command Center, which serves the needs of CDF, BCFD, and certain cities within the county." That statement is partially incorrect, and the EIR should contain an accurate discussion of the funding arrangements. C0002-90

The ECC is operated by CDF, but CDF does not provide the service or command center for free. Butte County provides direct funding for 3.5 Dispatchers, 2.0 Captains, materials, and electronics (approximately two-fifths of the overall staffing and resources of the ECC). On top of the direct costs funded by the County, the County pays for a portion of CDF's annual costs to operate the ECC through the administrative rate charged in the Schedule A Agreement between the County and CDF, as well as approximately 2/5ths of the facility and equipment remodeling costs every 10 years (approximately $182,000 in fiscal year 2006-07). For fiscal year 2005-06, the Schedule A Agreement between the County and CDF contained $1,022,083 for just the administrative rate portion of the contract. Part of that $1+ million was used by CDF to fund a portion of the ECC. Just as the county pays a portion of the ECC funding through the Schedule A Agreement, so do the "certain cities" referenced in the DEIR.

8. The Discussion of the "South County Interagency Fire Protection Agreement" Is Inaccurate

On page 4.9-12, the DEIR states

> [i]n practice, fire protection and emergency medical services to the project area and to the Greater Oroville Area are provided jointly by CDF, BCFD, DPR and the Oroville Fire-Rescue Department. These agencies cooperatively respond to calls within the area based on the South County Interagency Fire Protection Agreement. Under this agreement, primary responsibility for fire protection and emergency service calls in the south County area is divided among these agencies depending on the location of the incident and the availability of fire units to respond to the call, regardless of primary jurisdictional responsibilities.

C0002-91

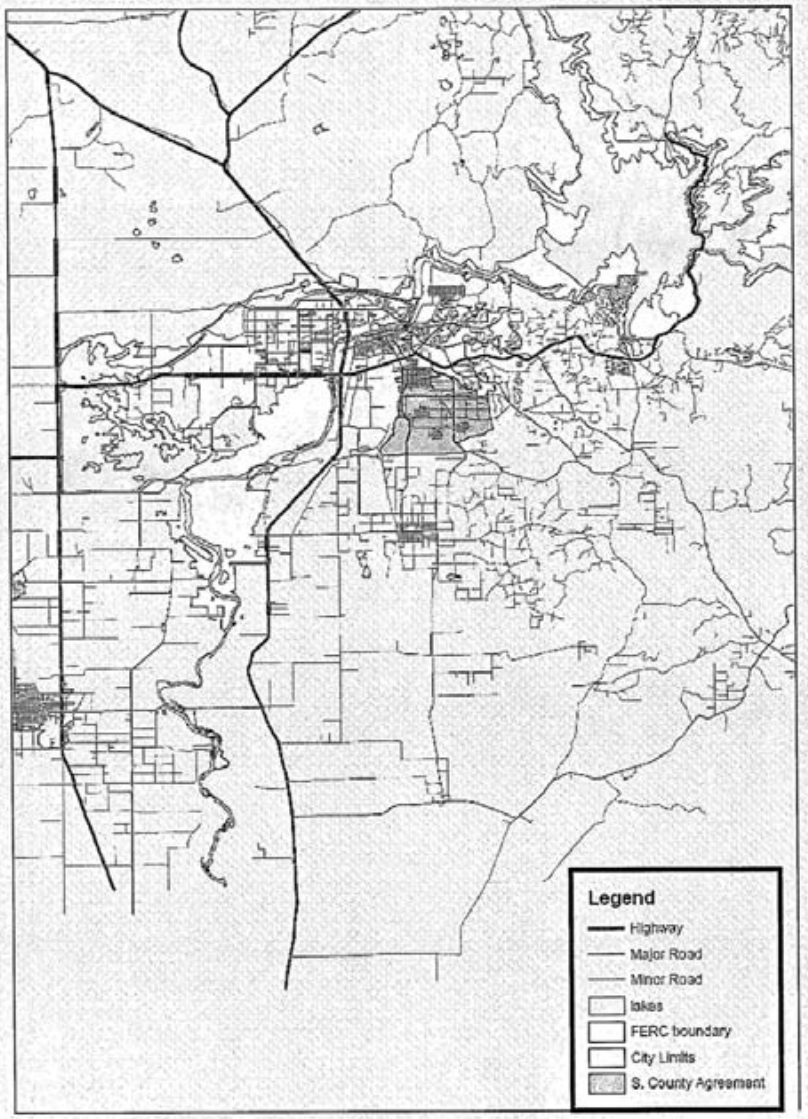
That statement is confusing and incorrect. There is no agreement called the "South County Interagency Fire Protection Agreement" currently in place. There is an "Oroville Area Automatic Aid Agreement" between the City of Oroville and Butte County, and there is a "South Oroville Automatic Aid Agreement" among the City of Oroville, Butte County, and El Medio Fire Protection District. The state agencies (CDF, DPR) are not party to either of those agreements.

The DEIR also errs in stating that the fire protection agreement encompasses the project area, since it is not clear what agreement the DEIR is discussing. The Planned Response Area for the "South Oroville Automatic Aid Agreement" is a very small area south of the City of Oroville, as depicted in Figure 1 below, titled "South Oroville Agreement Boundary." As shown in the map, the boundary doesn't include any part of the Project Area. The response area for the "Oroville Area Automatic Aid Agreement" encompasses only the small portion of the project area that falls within the city limits.

C0002-92

Figure 1

South Oroville Agreement Boundary



Parties to the Agreement include Butte County Fire Dept., Oroville Fire Dept., and El Medio Fire District.

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9. The DEIR's Discussion of Butte County-CDF Contractual Arrangements Should Be Corrected

On page 4.9-14, the DEIR states:

> Butte County contracts with CDF for full-service emergency and non-emergency responses to incidents that include medical emergencies, rescues, structural fires, wildland fire, hazardous material spills, and other miscellaneous calls for services. Butte County pays CDF for staff services under the cooperative fire protection agreement, and BCFD receives supplemental staffing through a volunteer program.

C0002-93

This discussion inaccurately describes the contractual relationship between the County and CDF. Butte County contracts with CDF for personnel only. On top of the direct costs that Butte County must pay CDF for the personnel assigned to BCFD, the County pays an administrative rate that has ranged from 9 percent to over 12 percent over the past 10 years for "administrative overhead"—a cost that is close to $1 million for Butte County alone. In addition, Butte County is solely financially responsible for all BCFD stations, equipment, and other resources. Butte County also spends approximately $500,000 per year on its volunteer firefighter program, which is not associated with CDF at all.

10. The DEIR Should Clarify the Role of Fire Stations Affected by the Project

On page 4.9-14, the DEIR states, "[a]ccording to Butte County, there are 22 fire stations, not including City of Oroville fire stations, with the ability to respond and provide services to a large part of Butte County that includes the project areas."

C0002-94

The statement misstates the information provided by the county. The 22 stations described by the county include the stations that respond directly to the Oroville Project area and the stations that must "move up and cover" those priority areas when a station near the Oroville Project is left uncovered for 30 minutes or more. The move-up-and-cover stations thus must respond when needs arise in the project area, but do not actually provide services within the project area.

11. The DEIR's Discussion of the County's Emergency Response Call Volume Understates the Impact of those Calls

On pages 4.9-14 to 4.9-15, the DEIR contains discussion suggesting that the call volume generated by the project is a relatively small percentage of the total call volume generated within the county. The point of that discussion is unclear, for responding to fifty calls a year (a conservative number, per the discussion below; not the total number of calls responded to at the Project by BCFD each year) is expensive, particularly for a county that already is financially strapped. Additionally, as the county has pointed in past filings, responding to calls in the project area can be much more costly than

C0002-95

responding to calls in other parts of the county, because the project area is more rugged and remote. *Operational Impacts Report* at 15. Moreover, the numbers submitted by the County in 2006 are conservative. Unless the word "Lake Oroville" was in the description, the call was not identified. The numbers therefore do not include any calls to other areas of the project (Thermalito Forebay and Afterbay, OWA, etc.). C0002-95 con't

On page 4.9-15, the DEIR cites DPR's estimates of call volume to the county. That estimate is lower than the county's estimate. The DEIR does not state how DPR compiled its estimate, and that estimate does not appear to derive from any sort of written correspondence, and may simply be an off-the-cuff estimate from one DPR employee. The county's estimates derived from careful research into call records and used a conservative methodology, and therefore should be the basis for any conclusions about existing call volumes. C0002-96

In addition, the statement that "BCFD personnel (including contracted CDF personnel) respond to calls…" must be clarified. The statement implies that CDF-paid personnel are responding. In fact, the county, in accordance with its contract with CDF, pays the "contracted CDF personnel" who respond. C0002-97

12. The Solid Waste Management Facility is County-Owned and Operated and is Located on County Land

On page 4.9-17, the DEIR states that "[m]anagement of solid waste material in the area is performed by several privately owned transfer stations and one central sanitary landfill site that is owned by Butte County and leased to a private company (Waste Management) for operation and management." C0002-98

This statement is partially incorrect. The central landfill is owned, operated, and managed by Butte County. Effective March 2003, the County ended its lease arrangement with Waste Management.

The DEIR also incorrectly states that the landfill is located in Paradise. While the landfill has a Paradise mailing address, it actually is situated on unincorporated Butte County land. C0002-99

13. The DEIR Must Include Discussion of Butte County's Financial Resources

One of the most important factors affecting the ability of Butte County to provide services to the Oroville Project, and affecting the extent to which providing those services burdens the county, is the county's financial status. Butte County has repeatedly submitted information sufficient to support such discussion, and the information demonstrates that the service burdens imposed by the project exacerbate and perpetuate the county's financial stress. *See* Appendix A (FMY Associates, *Socio-Economic Impacts of the Oroville Facilities on Butte County, California*); Appendix B (Operational Impacts Report); Appendix G (Butte County, California's Response to the May 2006

37

Reports of CH2M Hill and TCW Economics (2006).) With the exception of discussion in the environmental justice section, which summarizes the economic status of people living in Butte County but does not focus on the relationship between economics and county finances, the DEIR contains no discussion of those problems. C0002-100

The EIR must include discussion of the county's status.[25] Absent such discussion, readers will not understand the context in which public service burdens occur and mitigation responsibilities are distributed, and will not have the ability to effectively assess the significance of impacts and burdens created by the project. C0002-101

Drawing upon past filings submitted by the county, the discussion below provides such information.

a. The County's Responsibilities

California is one of handful of states that administers health and human services at the county level. In most other states, these services are provided directly by the state. California requires counties to pay a share of mandated services for programs such as:

- foster care;
- child welfare services;
- California Children's Services – medical payment assistance and case management for children who have serious medical issues;
- in-home supportive services – house keeping and medical services to the elderly and the disabled so they can stay in their own homes instead of being institutionalized;
- adoption assistance program;
- Temporary Assistance to Needy Families ("TANF") – welfare payments formerly known as Aid to Families with Dependent Children; and
- administrative costs of various entitlement programs

California counties also are responsible for 100% of costs to provide medical services to indigent adults and cash payments to those who are not qualified under TANF (known as General Assistance). In addition, California counties are responsible for operating community-based mental health programs and providing institutions or group homes to the seriously mentally ill.

In previous filings with FERC, the county has shown that in fiscal year 2004-05, the county expended a total of $170,726,473 for health and human services. Operational Impacts Report, Appendix B, at 55. The county used conservative estimates to show that C0002-102

[25] In its cumulative impacts discussion, the DEIR provides a good explanation of the constraints upon the ability of California counties to raise funds, and explains counties' dependence upon state allocations and the complications that dependence can create. The county appreciates DWR's inclusion of that discussion.

approximately $1.8 million is attributable to the existence and operation of the Oroville Project. *Id.* at 4, 57. C0002-102 con't

b. Butte County's Financial Situation

No one disputes that Butte County is financially distressed. FERC's FEIS acknowledged that the California Commission on Mandates found Butte County to be in "acute fiscal distress" three times since 1990. FEIS at 328. The FEIS also verified that "[a]lthough several California counties filed for this status in the mid-1990s, Butte County is the only California county that has filed for and been granted this finding in recent years." The Commission on Mandates made this finding because Butte County clearly demonstrated a combination of low revenues and high expenditures. The Commission found that Butte County had at least $17 million in unmet needs. As discussed below, that gap derives from low-income levels and the high demand for poverty-related services, both of which are partly attributable to the Oroville Project. C0002-103

Table 1
Median Household Income (in dollars)
(source: *Operational Impacts Report* at 54)

	1998	1999	2000	2001	2002
Butte County	30,464	30,536	31,963	31,342	32,124
California	41,003	43,924	46,836	47,064	47,323
U.S.	38,885	40,696	41,990	42,228	42,409

As shown in Table 1, the median household income in Butte County was 78.3 percent of the U.S. median and 74.3 percent of the California median in 1998. The gap grew to 75.7 percent of the U.S. median and 67.9 percent of the California median in 2002, the last year data were available through the U.S. Census Bureau. The data show that from 1998 to 2002, the median household income in Butte County increased a modest 5.5 percent. In contrast, the increase was 9.1 percent for the U.S. and 15.4 percent for California as a whole.

The low median household income has a direct revenue impact on Butte County. With lower income, residents in Butte County own less expensive property and pay proportionally lower property taxes than other jurisdictions. County residents also have less disposable income, and the County receives lower sales tax revenues.

Because of the high poverty levels that go with low income, Butte County also must devote a higher percentage of its limited resources to pay for health and human services. The following table illustrates the percentage of people living in poverty in Butte County:

Table 2
Percentage of People Living in Poverty
(source: *Operational Impacts Report* at 54)

39

	1998	1999	2000	2001	2002
Butte County	19.4	18.0	17.2	16.7	16.4
California	14.9	13.7	12.7	12.9	13.3
U.S.	12.7	11.9	11.3	11.7	12.1

In other filings with FERC, the County has demonstrated that the apparent improvement from 1998 to 2002 has not lasted, and poverty levels remain high:

Median Household (HH) Income
- 2005 Butte County Median HH Income - $36,602
- 2005 State Median HH Income - $53,629

Average Earnings Per Job
- 2005 Butte County Average Earnings Per Job - $20,957
- 2005 California Average Earnings Per Job - $30,018

Persons Living in Poverty
- 2005 Butte County Percentage of Persons Living in Poverty - 19.6%
- 2005 California Percentage of Persons Living in Poverty - 13.3%

Children Under the Age 18 Living in Poverty
- 2005 Butte County Percentage of Children Living in Poverty - 22.8%
- 2005 California Percentage of Children Living in Poverty - 18.6%

Analysis of income support payments to Butte County residents reveals that Butte County is far more impoverished than the remainder of the State of California. Table 3 shows the disparity in percentages of Butte County households receiving income support payments versus the percentage of households statewide receiving these same welfare payments.

Table 3
Percent of Households Receiving Income Support Payments
(Sources: Population and Households from http://www.factfinder.census.gov/home/saff/main.html?_lang=en; Statewide Aid Data from http://www.dss.cahwnet.gov/cdssweb/reports_2315.htm and http://www.dhs.ca.gov/admin/ffdmb/default.htm. The percentage of Butte County households data are actual case data as of 1/3/2007. The percentage of state households data are from September 2006 and are the most recent data available.)

Type of Payment	***% Butte County Households***	***% State Households***
TANF	5.0%	4.1%
Food Stamps (Non-Assistance)	7.8%	5.15%
MediCAL (Non-Assistance)	20.3%	15.0%
County Medical Services Plan	3.3%	0.23%
Total of households receiving aid	**35.3%**	**24.4%**

40

Foster care costs also heavily impact county finances. As discussed above, Butte County has a significantly lower average income and higher average poverty levels for both adults and children. The number of substantiated referrals of abuse and/or neglect in Butte County is nearly twice the state average, as is the number of children funded by foster care. Table 4 below provides details using the most current data available.

Table 4
Impact of Foster Care in Butte County
(Sources: CDSS Outcome & Accountability County Data Report, Butte County, July 2006; CDSS Outcome & Accountability County Data Report, California, July 2006)

	Butte County	***Statewide***
Substantiated Referrals of Abuse / Neglect	21.4 per 1000 population	11.3 per 1000 population
Children in Foster Care	14.9 per 1000 population	7.6 per 1000 population

The county also provides services to the elderly and disabled. Table 5 shows the impacts of providing Income Support Payments to those groups. It shows income maintenance payments received by the aged, blind, and disabled in Butte County as compared with statewide averages. These income support payments include Supplemental Security Income (SSI) and State Supplementary Payment (SSP) recipients. Table 5 also reflects that Butte County has a higher-than-average proportion of elderly residents. The higher percentage of elderly persons in Butte County leads to higher transfer payments of retirement, disability insurance benefit payments, medical benefits, and veteran benefit payments.

Table 5
SSI/SSP Recipients and Aged Population
(Source: http://factfinder.census.gov/home./saff/main.html?_lang=en)

	Butte County	***Statewide***
SSI/SSP Recipients	4.3%	3.0%
Over age 65	14.9%	10.7%

The need for services is disproportionately concentrated in the Oroville area. For example, Oroville contains less than 10 percent of the county's total population but serves as home to 39% of the county's cash aid recipients and 36 percent of the County's Food Stamp recipients. Nine percent of the households in the Oroville Area receive cash aid, while just 3.9% of the households elsewhere in the county receive such aid.

That concentration of poverty derives in significant part from the existence of the Oroville Project. The facilities brought a substantial number of low-income residents to the county, who then relied and continue to rely on health and human services from the county. This migration started when project construction ended and thousands of construction worker houses were either abandoned or sold at very low prices. Once individuals and families moved into the county to take advantage of these abandoned or low-cost houses, they found few jobs available and hundreds then migrated to the

C0002-104

county's welfare rolls and/or increased demand on county funded health and human services. The impacts of this effect continue today, with many of those former project workers and those acquiring abandoned/low-cost construction housing, as well as their families, unable to find economically sustainable employment[26] and remaining in need of county health and human services. C0002-104 con't

Table 6 below demonstrates the social service caseloads before and after completion of construction of the Oroville Project. As this table clearly indicates, the post-project-construction period coincided with substantially increased subsistence payment obligations. In 1962, when the county had a population of 91,000, the per capita subsistence payment was approximately $14.24. There were 701 subsistence cases, and the per-case average subsistence payment was $1,846.27. In 1967, the year the Project was completed, the population was 101,000, the per capita subsistence payment was $23.75, the number of cases 1,206, and the per-case average subsistence payment was $1,995.31. C0002-105

After 1967, the year construction of the Oroville Project ended, the number of subsistence cases and per capita subsistence payments increased dramatically. For example, in 1975 the county's population, at 119,000, had not increased significantly but the per capita subsistence payments had increased to $57.19. The number of subsistence cases had also increased to 2,354 cases, and the average benefit per case increased to $2,900.93. Thus, in just eight years after construction was completed, the number of individuals and families in the county receiving subsistence payments more than tripled, and the total financial burden on the county from such payments increased from $2.4 million to $6.8 million per year—a 184 percent increase in subsistence payments. C0002-106

Table 6
Butte County Subsistence Caseloads
1960 to 1975
(Source: *Response to CH2M Hill and TCW* at 22)

Year	Population	Subsistence Payments	Payments Per Capita	Cases	Per Capita
1960	83,200	1,340,146	16,107.52		
1961	87,000	1,338,980	15,390.57		
1962	90,900	1,294,234	14,238.00	701	7.71
1963	93,700	1,540,427	16,439.99	816	8.71
1964	95,800	2,058,345	21,485.86	1032	10.77
1965	97,300	2,381,670	24,477.60	1194	12.27
1966	99,900	2,462,004	24,644.68	1246	12.47
1967	101,300	2,406,346	23,754.65	1206	11.91
1968	100,200	2,600,864	25,956.73	1268	12.65

[26] In past filings, DWR has suggested that jobs created by the operation of the Oroville Project somehow remove this effect. But most project-related jobs are low-paying and seasonal, and people working those jobs still face poverty and create demand for county social services.

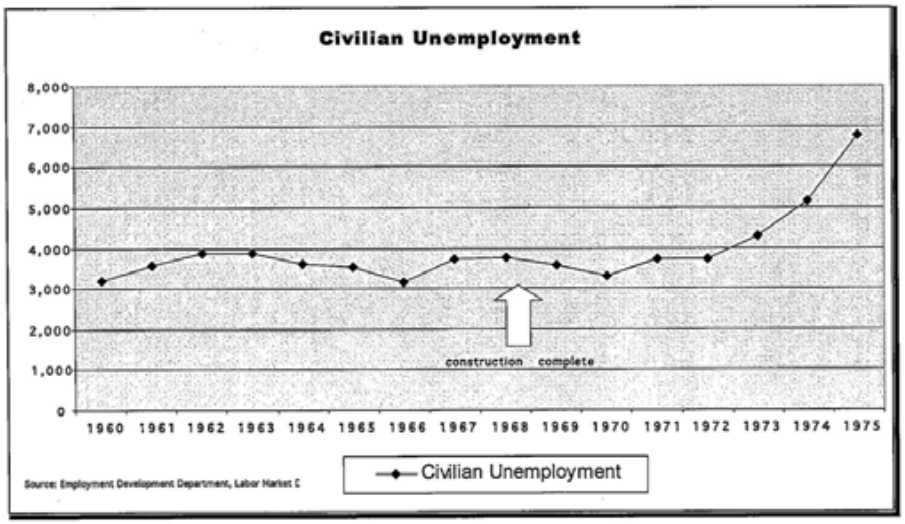
1969	100,000	3,067,742	30,677.42	1521	15.21
1970	101,969	3,804,760	37,312.91	1882	18.46
1971	104,300	4,400,406	42,189.89	1905	18.26
1972	108,300	4,567,680	42,176.18	2002	18.49
1973	112,100	4,834,494	43,126.62	2116	18.88
1974	116,000	5,696,458	49,107.40	2221	19.15
1975	119,400	6,828,797	57,192.60	2354	19.72

Source: California Department of Social Services
Note: The highlighted year, 1967, is the year the dam was completed.

Unemployment figures in Butte County also confirm the negative impact of the Project on Butte County. After the height of project construction in 1966 and 1967, the Butte County population decreased only slightly to 100,200 in 1968 and 100,000 in 1969 before starting an upward trend in 1970. Operational Impacts Report, Appendix B, at 56. The absence of a more significant decline reflects the decisions of many workers and their families to remain in the area. According to California Employment Development Department, unemployment increased sharply after construction ended, however, climbing from 3,750 in 1968 to 6,775 in 1975. The Oroville Dam was one of the last major water projects constructed in California, which may explain why so many workers remained in Butte County after its completion, despite increasing unemployment.

C0002-107

Figure 2
Butte County Unemployment Levels (1960-1975)
(Source: *Operational Impacts Report*, Appendix B, at 57)



Because precise data relating current county residency to the project construction period are unavailable, the county used a conservative figure of 5 percent (or about one-third of the 1967 percentage) to estimate the impact of project construction on the county's present costs of providing health and human services. In other words, the county assumed that two-thirds of the service burden created during that period has disappeared. The county's total health and human services cost in fiscal year 2004-05 was $36,759,669, and the amount attributable to project construction is approximately $1.8 million, based on the 5 percent population assumption. C0002-108

Butte County 2005 Population	210,022
Percentage of Project Population Compared to Butte County Population	5%
Butte County's Share of H&HS ('05$)	$36,759,669
"Base Year" Project Impact on H&HS	$1,837,983

Operational Impacts Report at 57.

Meanwhile, Butte County has had to absorb other onerous costs due to the existence and ongoing operation of the Oroville Project. Tax revenues are vital to the county's economic health. Appendix A, p. 13. But as is documented in the socioeconomic study that accompanies these comments, the county has suffered heavy losses in tax revenue due to DWR's failure to pay either taxes or so-called PILOT payments (payments in lieu of taxes). *Id.* at 13-18. The study estimates that these losses, which have been of a magnitude great enough to have contributed to a figurative "death spiral,"[27] are approximately $6.87 million per year in 2004 dollars. *Id.* at 18; see FERC FEIS, p.345 ("estimates of lost tax revenue in the range of $1.0 and $6.9 million annually are reasonable estimates of the County's foregone tax revenue"). The Project has resulted in other financial hardships to the county as well.[28] C0002-109

In an area with a diverse, robust economy, a mobile population, and amply funded local government capable of facilitating economic adaptation or development, those impacts might have passed. But Butte County does not have those advantages, and its poorer residents have generally lacked the ability to become economically independent within the county or the means to go elsewhere. County government, which has been financially limited by, among other factors, the burdens created by the Oroville Project and the tax base reduction cause by that project, has not been able to proactively promote the county's economic development enough to alleviate those problems. Consequently, the impacts of project construction linger and continue to affect the county to this day. C0002-110

[27] "The County seems to be going through what its sometimes referred to in the economics literature as a 'death spiral.' The initial shock to the local economy was caused by the loss of tax revenues received by the County as a result of the large quantity of lands taken for the Project and by other tax generating property being displaced by the Project, such as DWR's removal of a tax-paying power plant." Appendix A, p. 11.

[28] See Appendix A, pp. 19-21 (describing financial harm due to DWR's failure to provide a low-cost allocation of Project power).

44

In discussing the project setting, DWR must acknowledge that context. Although it benefited other areas of California, the Oroville Project had a major negative impact on the county. That impact continues to this day, increasing the county's social service obligations, decreasing the county's ability to fulfill those obligations, and leaving the county exceedingly vulnerable to anything that sustains or increases the unfunded services it must provide to mitigate the impacts of the Oroville Project. Any future impacts caused by the project will be a cumulative addition to that difficult history. C0002-111

F. Transportation and Traffic

1. The Project is Located in the Sierra Nevada Foothills

On page 4.14-1, the DEIR states that eastern Butte County includes the foothills of the Cascade Range. In fact, the foothills are part of the northern Sierra Nevada range, as correctly shown on Figure 4.14-1. C0002-112

2. The Discussion of Existing Levels of Service Should Be Corrected

Table 4.14-3 assigns incorrect service level to two rural roads. Based on daily volume data collected in March 2004, Pentz Road (incorrectly referred to in the table as Pentz Magalia Road) had a daily volume of 5,011 vehicles. Durham Pentz Road also has a daily volume exceeding 5,000 vehicles. The level of service for each road therefore is Level D. C0002-113

3. The Discussion of Recreational Access Roads Omits Segments

Table 4.14-3 also leaves out road segments that lead to recreational areas surrounding the Oroville Project, and it therefore does not support a complete analysis of project-related impacts to county roads. In addition to the roads listed, Table 4.14-3 should include: C0002-114

- *Stringtown Road*
- *Foreman Creek Road*
- *Nelson Bar Road*
- *Foothill Boulevard*
- *Oregon Gulch road*
- *Fernwood Avenue between Colina Way and Lausen Street*
- *Lause Street between Fernwood Avenue and Lakeland Boulevard*
- *Larkin Road between SR 162 and Almond Avenue (south end of OWA)*
- *Vance Avenue*
- *Walnut Avenue*
- *Palm avenue*
- *Almond Avenue*
- *Welsh Road*

45

4. The DEIR Should State that Highway 70 Improvements Are Not Presently Planned

On page 4.14-10, the DEIR states that the State of California "plans on improving State Routes with regular congestion as budget allocations allow." This statement creates the impression that improvements are coming just as soon as budgets allow.

That statement should be amended to acknowledge that improvements to Highway 70 are not currently planned. As explained in Butte County's Operational Impacts Report, CalTrans has shelved the previously planned Highway 70 project. Operational Impacts Report, Appendix B, at 46.

C0002-115

5. The Discussion of Roads Maintained by the County Must Be Corrected

On page 4.14-14, the DEIR states that road use by project visitors "increases the County's need to regularly maintain these roads." That phrasing is ambiguous, and implies that visitors' use makes regular maintenance more important but not more frequent. To be clear, the sentence should say the project visitors' road use "accelerates the County's need to perform maintenance on these roads." That phrasing accurately conveys the fact that roads deteriorate more quickly, and the county must perform maintenance more often, because of project visitors.

C0002-116

Pages 4.14.14 to 4.14.15 list roadway segments used by visitors to reach the project. The list is incomplete, and should appear as follows (additions or changes are underlined):

C0002-117

- *Kelly Ridge Road*
- *Oroville Dam Boulevard* East *between Glenn Drive and Powerhouse Road*;
- *Canyon Drive between Olive Highway and Oroville Dam Boulevard* East;
- *Royal Oaks Drive between Canyon Drive and Kelly Ridge Road*;
- *Oroville Quincy Highway between* Foreman Creek Road *and the Butte County line*;
- *Forbestown Road between Oroville Quincy Highway and the Butte County line*;
- *Lumpkin Road from Forbestown Road to* Craig Recreation Road;
- Stringtown Road;
- Foreman Creek Road;
- Nelson Bar Road;
- Foothill Boulevard;
- *Truex Road*
- *The portion of Ophir Road outside of the City of Oroville*;
- *Lower Wyandotte Road between Ophir Road and* Foothill Boulevard;
- *Foothill Boulevard*
- *Miners Ranch Road;*
- *Oroville Bangor Highway between Miners Ranch Road and La Porte Road;*

46

- *Los Verjeles Road between La Porte Road and the Butte County line;*
- *Pentz Road south of the Paradise City Limits to SR 70;*
- *Durham Pentz Road;*
- *Vinton Gulch Road;*
- *Dark Canyon Road;*
- *Cherokee Road between Oroville City limits and* Highway 70;
- Oregon Gulch Road;
- *Thompson Flat Cemetery Road;*
- *Long Bar Road between the Oroville City Limits and* the end;
- *Colina Way between Long Bar Road and* Fernwood Avenue;
- Fernwood Avenue between Colina Way and Lausen Street;
- Lausen Street between Fernwood Avenue and Lakeland Boulevard;
- *Lakeland Boulevard;*
- *Nelson Avenue west of the Oroville City Limits;*
- *Wilbur Road;*
- *Grand Avenue west of the Oroville City Limits;*
- *Larkin Road between SR 162 and* Almond Avenue (south end of Oroville Wildlife Area);
- Vance Avenue;
- Walnut Avenue
- Palm Avenue
- Almond Avenue
- Welsh Road;
- *East Hamilton Road;*
- *Pacific Heights Road;*
- *Arroyo Drive;*
- *Heritage Road;*
- *Garden Drive;*
- *The portion of Feather River Boulevard outside of the City of Oroville;*
- *Hurelton Road; and*
- *The portion of Table Mountain Boulevard outside of the City of Oroville.*

C0002-117 con't

6. Discussion of Service Levels

In section 4.14.3.2, the DEIR states that DWR is using Butte County's 2001, 2002, and 2003 service level data. However, the associated table appears to cite only 2006 numbers. DWR needs to clarify which data the EIR will use.

C0002-118

The EIR also should clearly disclose that the service level data contained in an RTP are generally applicable, but are not refined to an intersection-specific level. A road segment designated as having a certain level of service may have key sections that do not allow that level. For an EIR like this one, which should focus on key portions of access roads and important intersections, a more refined analytical method would be appropriate.

C0002-119

47

7. The DEIR Should Clarify the Allocation of Responsibility for Maintaining Bridges

On page 4.4-16, the DEIR states that "DWR owns and maintains the structural portions of several bridges utilized by the public in Butte County, while Butte County or Caltrans maintains the decking portion (or roadway) of the bridges." C0002-120

To be accurate, the statement should read: "DWR owns several bridges utilized by the public in Butte County, and maintains the structural portion of those bridges. Butte County and Caltrans maintain the non-structural portions of those bridges, including the deck/roadway, joint seals, bridge rails, drainage, curb/sidewalks, and approach rails.

8. The DEIR Overstates DWR's Role in Maintaining Access Roads

On page 4.14-17, the DEIR states that state agencies maintain "access roads at Vinton Gulch, Goat Ranch, and others," and adds that those agencies maintain "Larkin Road" and access roads to the Thermalito Diversion Dam operating facilities and the Diversion Pool DUA. Those statements are partly inaccurate and partly misleading. C0002-121

The state agencies maintain only part of the access roads to Vinton Gulch and other boat ramps. The county maintains segments not located on state property. The county therefore manages 0.62 miles of the Vinton Gulch access road; 3.89 miles of the Stringtown Road leading to the Stringtown boat ramp; 3.44 miles of Dark Canyon Road leading to the Dark Canyon boat ramp; and similar portions of other roads. Because Goat Ranch is a "boat in" campground, there is no public access road to maintain. No boat ramp is accessible without using county-maintained roads.

In addition to maintaining roads used to access the boat ramps, Butte County and the City of Oroville maintain Larkin Road. The county also maintains access routes to Thermalito Diversion Dam. The Thermalito Diversion Dam operating facilities and Diversion Pool DUA are accessible from city and county-maintained Cherokee Road on the northerly side of the Feather River. DWR's parking lot for hiking and biking is accessible from the county-maintained Lakeland Boulevard on the easterly side of the Feather River.

9. The DEIR Uses Flawed Assumptions to Calculate Roadway Impacts from Recreational Visitors

On page 4.14-18, the DEIR calculates the impacts caused by project visitors by assuming that project visitors create no greater need for road maintenance than ordinary drivers on any other road. In other words, it assumes the vehicles use to access the project are just like average vehicles used anywhere else. That assumption overlooks the fact, acknowledged elsewhere in the DEIR, that a large percentage of project visitors pull boats. That means that those visitors' impact is disproportionately large, and the DEIR's false assumption of equivalence will lead to significant underestimation of impacts. C0002-122

48

10. The DEIR Must Address Serpentinite, Unpaved Roads, and Potential Air Quality Impacts

In its discussion of geology, the DEIR states, correctly, that serpentinite rock formations occur in the vicinity of Lake Oroville, and that serpentinite may contain asbestos. Many of the roads used to access the project are unpaved, and where those roads cross serpentinite bands drivers may kick up asbestos-containing dust, causing hazardous air quality conditions. The EIR should disclose this potential hazard, should discuss the results of any monitoring done to assess whether such hazards exist, and, if no monitoring has been done, should disclose that fact. C0002-123

G. Public Health and Safety

1. The DEIR Overlooks Hazardous Materials Issues

On page 4.15-1, the DEIR states that "there appear to be no significant hazardous materials or waste issues within the FERC project boundary." That statement overlooks the fact that gasoline is stored at Lime Saddle and Bidwell Marinas as well as on the hundreds of houseboats docked at the marinas. The county has dealt with fires and boat accidents in the past and will likely have to do so again in the future, and those accidents could release gasoline into the environment. That statement also overlooks the fact that understaffed law enforcement has turned the project area into an attractive dumping ground for old cars, which can leak oil and other hazardous materials as they disintegrate, and for waste products from illegal methamphetamine laboratories, which county law enforcement officers have found in parts of the project area. The DEIR should address these hazardous materials issues. C0002-124

2. The DEIR Should State the County's Role in Helicopter Evacuations

On page 4.15-5, the DEIR describes Enloe FlightCare's role in providing evacuation services. The DEIR also should state that Butte County Sheriff's Office and CalFire helicopters provide short-hauls from remote locations. C0002-125

H. Water Temperatures and Rice Farming

Sections 4.2 (Surface Water Quality and Quantity) and 4.13 (Agricultural Resources) include a number of incomplete, inaccurate and misleading statements relating to the relationship between water temperatures and rice farming. As detailed below, the analysis and conclusions in the DEIR are not consistent with those in FERC's Final EIS, lack internal consistency, and do not take account of key research findings that lead to markedly different conclusions. Without substantial revisions, this analysis could not serve as an adequate public disclosure document in accordance with CEQA. C0002-126

Two prefatory comments on this issue may assist in framing Butte County's specific comments on this subject. First, these DEIR sections appear to disregard key C0002-127

conclusions in recent studies commenting on this relationship. To correct this imbalance, Butte County includes in its appendix several studies whose findings should be addressed in the EIR. The studies are: C0002-127 con't

1. R.G. Mutters, *Spatial Distribution of Water Temperature Affects on Rice Productivity*, Final Report to the California Department of Water Resources, Project Number XXX. April 2007. (Mutters, 2007; Appendix H.)

2. R.G. Mutters, J.W. Eckert, A. Roel, and R.E. Plant, *Measuring the effect of low water temperature on Blanking and Grain Yield in California Rice Production*, 3rd International Temperate Rice Conference Punte del Este, Uruguay (2003) (Mutters et al., 2003; Appendix I.)

3. A. Roel, R.G. Mutters, J.W. Eckert, and R.E. Plant, *Effect of Low Water Temperature on Rice Yield in California*, Agronomy Journal 97:943-948 (2005). (Roel, et al., 2005; Appendix J.)

4. A. Roel, and R.E. Plant, *Factors underlying Yield Variability in two California Rice FIelds*, Agronomy Journal 96:1481-1494 (2004). (Roel, et al., 2004; Appendix K.)[29]

Second, Butte County has recently been informed that water districts have reached a tentative agreement with DWR addressing rice production issues caused by cold water from the Afterbay, as discussed further below. While that agreement is apparently not a final one, the movement toward a final accord on this matter helps place in context the modest economic mitigation sought by the county and discussed elsewhere in its comments. To the extent that DWR has the ability to mitigate economic losses incurred by the water districts, it should be similarly able to provide economic mitigation for the service costs and payments that Butte County will incur as a result of the project.[30] C0002-128

Section 4.2 (Surface Water Quality and Quantity)

On page 4.2 – 26, the DEIR states that:

It should also be noted that agricultural users benefit from the late season C0002-129

[29]An additional source that should be referenced and consulted is R.G. Mutters, R.E. Plant, A. Roel, and J.W. Eckert, *Measuring the Effect of Low Water Temperature on Blanking and Grain Yield in Rice*, Final Report to the California Rice Research Board *In* Annual Report, Comprehensive Rice Research (2001), at 137. (Mutters, et al. 2001.)

[30] As detailed in sections V.B and VI.D of these comments, the public service burdens imposed upon the county due to the project are a key category of project impacts, and a clear understanding of those burdens is necessary to frame DWR's mitigation duties.

water reliability, which is greater during the latter part of the irrigation season than before the project was constructed.

That conclusion is in contrast to FERC's Final EIS for Project No 2100 May 18, 2007, which states on page 346 (emphasis added): "FMY Associates, in a report filed with the Commission in June 2006 (2006b) and in its comments on the draft EIS, noted that the rice farmers in the area have water rights senior to the Oroville Facilities, which indicates that the rice farmers would have an equally or even more reliable water supply if the project had not been built, and therefore any increased assessed value would not be attributable to the project." C0002-129 con't

On page 4.2 – 27 Figure 4.2 -11, the DEIR presents air and water temperature in 2002. It indicates that the temperature of the water released to Western Canal was below the critical threshold for rice (65 F based on UC research) from May 2002 through July 2002 continually aside from two brief periods around May 27 and June 3.

But the relationship between air temperature and water temperature is not consistent in the figure; nor does one year of temperature data establish a definitive long-term correlation between the two. With regard to heat transfer in the short term, the water temperature easily affects air temperatures near the surface. Air temperature typically only affects the very top layer of water. The latter depends on water depth and residence time. For example, water is typically released from the lake at about 47° F during the summer regardless of the air temperature based on data posted on the DWR web site. Warming of bodies of water is more a function of solar radiation rather than air temperature. C0002-130

Section 4.13 (Agricultural Resources)

On page 4.13 -1, the DEIR states: "It should be noted that, although the focus of this evaluation is on potential water temperature effects on rice yields and production, water temperature is only one of the contributing factors potentially affecting agricultural resources."

That statement is misleading. Repeated studies conducted by the University of California have documented that low water temperature alone can account for over 90 percent of the yield loss in rice fields.[31] Other UC studies designed to identify factors that contribute to rice yield variability have not found any variable that consistently accounts for within field yield variability as well as low water temperature.[32] C0002-131

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[31] Mutters, 2007; Mutters, et al., 2003; Mutters, et al., 2001; Roel, et al., 2005.

[32] Roel, et al. 2004.

51

On page 4.13 – 4, the DEIR states: "Water temperatures for rice production are reported to be suitable above 60 degrees Fahrenheit (°F) to 65°F (Mutters et al. 2003a)."

That statement is incorrect. Measurable yield loss can occur when the water temperature drops below 65 F. Continual exposure to water temperature between 60 and 65 would result in dramatic losses in yield. A more accurate statement would be that water temperatures above 65 are suitable for rice production. Mutters, 2007; Mutters, et al. 2003; Mutters, et al., 2001. C0002-132

On page 4.13 – 4, the DEIR states: "Areas in the rice fields that are affected by delivery water temperatures are localized to the areas of the field immediately adjacent to the field water inlet."

That statement is incorrect. The cold water associated yield loss has been documented to extend well beyond the area immediately adjacent to the water inlet. In some cases the affect is observable across the entire length of a 20-acre intake check. Mutters, 2007; Mutters, et al. 2003; Roel, et al. 2005. C0002-133

On page 4.13 – 4, the DEIR states: "…there is some warming of water within the conveyance systems, especially in the farthest reaches of the system at greater distances from the diversion location to the point of the water application."

That statement is misleading. For example in the Western Canal District, the water warms only a degree or two from the point of diversion from the Afterbay to dam near the intersection of Nelson Road and 7 Mile Lane, a distance of about 15 miles. Mutters, et al., 2001. In fact water in the main canal only substantially warms after the amount of recirculated water introduced into the system south of Nelson Road/7 Mile Lane intersection increases. Even so the cold water 'foot print' in terms of reduced plant vigor and productivity is evident as far south as Highway 162 in the Western Canal District.[33] C0002-134

R.G. Mutters monitored water temperatures in the main canal of the Western District from the diversion at the Afterbay to the end of the district south of highway 162 from May through August in 2000 and 2001. The data are archived in his office. These data were presented to DWR on a number of occasions including in the presentation that is referenced on page 11.25 in the draft EIS.[34] As part of the 2005 study referenced on page 4.13 – 14 ("During 2005, DWR performed a study on six rice fields…"), DWR staff from the Red Bluff office monitored water temperatures in the main canals of the three irrigations district was monitored from May through August. That data, distributed to all parties involved in the 2005 study later that year, confirms Mutters' observations. C0002-135

[33] R.G. Mutters, personal communication with Butte County staff.

[34] *Id.*

On page 4.13 – 5, the DEIR states that: "This increase in yields is attributable to a number of production factors, including rice variety genetics, fertilization practices, weed control, pest and disease management, increased acreage under production, *and water supply reliability*." (Emphasis added.) That statement is unsubstantiated. Similarly on page 4.13 – 13, the DEIR states that: "Rice production requires warmer water during the spring and summer for germination and growth of rice (i.e., 65°F from approximately April through mid-May, and 59°F during the remainder of the growing season) (DWR 2001)."

C0002-136

These statements are incorrect. Water temperatures less than 65 F are detrimental to rice yield from planting through panicle initiation. Panicle initiation, the transition from the vegetative to the reproductive stage, occurs around 60 days after planting.

VI. Comments on Chapter 5 (Impacts)

A. Water Quality

Because the State Water Resources Control Board must use this EIR to grant or deny a water quality certification to the project, and because water-quality-related impacts also should be important to DWR's decisions about operation of a project that supplies water and supports water-based recreation, the EIR's water quality discussion is extremely important. In several ways, however, that discussion does not meet CEQA's requirements and does not provide sufficient information to support certification under section 401 of the Clean Water Act.

C0002-137

1. The DEIR's Approach to Objectives is Legally Flawed

In order to issue a Clean Water Act section 401 certification, DWR must demonstrate, to the satisfaction of the State Water Resources Control Board, that DWR will achieve

> compliance with all water quality objectives in the Basin Plan… as well as with other water quality objectives that the Project may affect. DWR must also demonstrate that the Project does not impair the beneficial uses of the Feather River or Lake Oroville. If the Project does not comply with one or more of the water quality objectives, then DWR must describe the actions that it will take to bring its Project into compliance with the applicable water quality requirements in order to protect and maintain the beneficial uses.

SWRCB, Letter to Magalie R. Salas, December 19, 2006, at 1-2. In making its section 401 determination, the SWRCB will need to rely on this EIR. Water quality violations also are highly relevant to the CEQA analysis, for project operations that cause or contribute to violations of water quality standards create significant adverse environmental impacts.

Under present conditions, project operations don't always comply with relevant water quality objectives,[35] notwithstanding DWR's assurances that "facility operations are reasonably protective of Basin Plan objectives" and that "[c]urrent operations of the Oroville Project supports and reasonably protects, or has no adverse effect on… all beneficial uses specified in the Basin Plan…." DEIR pp. 5.2-11, 4.2-15. Exceedances of water temperature objectives do occur, though the DEIR characterizes them as "minor." DEIR p. 4.2-22. Dissolved oxygen concentrations sometimes drop below objectives, though the DEIR again characterizes the deficits as "minor." *Id.* at 4.2-28. The DEIR describes one exceedance of electrical conductivity standards. *Id.* at 4.2-29. Fish in the project area contain mercury concentrations exceeding public health standards, and those concentrations occur partly because the project operates as a mercury sink, trapping contaminated sediments and allowing mercury to accumulate up the food chain. *Id.* at 4.2-32 to 4.2-33; *see* EPA, *Letter to Magalie R. Salas*, December 19, 2006 at 4-6 (describing the problem, which EPA described as a "substantial health risk"). DWR has observed major algae blooms, has detected "[e]levated bacterial concentrations… at many recreation sites within Lake Oroville and the Thermalito Complex," and has detected toxicity to fathead minnows at multiple testing sites. *Id.* at 4.2-39 to 4.2-42.

C0002-137
con't

To support a section 401 certification and ensure CEQA compliance, the EIR should clearly address each of these water quality problems. It should describe the measures DWR will take to prevent each specific water quality problem from recurring and should provide analysis demonstrating that those measures will be successful—and will succeed in a context of changing climate and evolving SWP operations. But the DEIR does not provide such assurances or specificity. For example:

- in discussing temperature, the DEIR relies on modeling exercises to conclude that temperatures under the proposed action will be lower than under the existing condition. The DEIR does not state whether the improvements will be sufficient to eliminate exceedances of temperature criteria, however. That modeling also arbitrarily assumes the non-existence of climate change, and the DEIR therefore does not consider whether proposed improvements will be sufficient to offset the detrimental impacts of climate change.

- The DEIR does not explain how DWR will avoid future inconsistencies with the Basin Plan's dissolved oxygen objective.

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[35] Though called "objectives," those standards are not just aspirational targets; compliance is mandatory. *See State Water Res. Control Bd. v. Office of Admin. Law*, 12 Cal. App. 4th 697, 701-02 (1993) (holding that water quality objectives are a form of regulations, and quoting the State Board's statement that "water quality objectives and implementation program established by a water quality control plan are binding standards, not mere goals or guidelines"). The standards also apply to the entirety of project operations, not just to dam discharges. *PUD No. 1 v. Wash. Dep't of Ecology*, 511 U.S. 700, 711-12 (1994). For those reasons, an apparent premise of the DEIR's water quality discussion—that a 401 certification is appropriate, because violations purportedly don't happen very often—is legally erroneous.

- The DEIR does not explain how DWR will mitigate or avoid the project's contributions to elevated concentrations of mercury in fish tissues. The proposed project does include a monitoring program for mercury contamination, but there is a difference between monitoring a problem and resolving it. In fact, the DEIR does not even discuss the project's role in impounding mercury-contaminated sediments and facilitating the bioaccumulation of mercury, notwithstanding EPA's warning of a "direct link to the presence of mercury in the Lake Oroville food web that has occurred as a result of the construction of the Oroville Facilities." *See* EPA, Letter to Magalie R. Salas, December 19, 2006, at 6.

- The DEIR's only proposed response to elevated bacterial concentrations is to post signs and potentially close swimming areas. The DEIR provides no assurance that those measures will actually mitigate the actual water quality problems, and even if they do, they would do so by substituting one environmental impact (loss of recreational areas) for another (human exposure to unsafe water).

C0002-137 con't

All of these water quality problems affect people's ability to enjoy the project facilities, and undermine its value as a recreational resource. To avoid such adverse impacts, and to assure full compliance with CEQA and the Clean Water Act, the DEIR should describe how DWR will assure that none of those water quality problems recur.

2. The DEIR Must Address Whether the Project Will Achieve Water Quality Compliance Amid Changing Climatic Conditions

As discussed above, the DEIR contains very little discussion of the water quality consequences of operating the project in the context of a changing climate. Its water quality impacts discussion appears to be almost entirely predicated upon modeling exercises that assumed the non-existence of climate change. *See* DEIR pp. 5.2-11 to 5.2-12, App. E at 49. Even in the cumulative impacts section's brief and entirely qualitative discussion, the DEIR provides no prediction about whether project operations would comply with water quality objectives under changed climatic conditions. Nor does it provide any discussion of potential measures to be taken if climate change prevents DWR from correcting the project's past tendency to contribute to water quality violations, or creates new water quality violations in the future.

C0002-138

This is an enormous omission. As described above, changes in ambient temperatures and runoff patterns will likely adversely affect water temperatures, dissolved oxygen concentrations, algae growth, and other factors important to water quality and to beneficial uses dependent upon high-quality water. To obtain a section 401 certification, DWR must demonstrate that those effects will not lead to non-compliance with water quality objectives, including objectives for temperatures and dissolved oxygen levels. Under CEQA, DWR similarly must provide sufficient information for readers to discern whether significant adverse impacts to water quality could occur, and how those impacts can be avoided or mitigated. The DEIR's short

discussion of climate change impacts on water quality does not provide the information necessary to support those determinations. C0002-138 con't

B. Local Land Use and Management Plans

The EIR should mention that Butte County and the City of Oroville are updating their general plans, and that the BCAG is creating a habitat conservation plan/natural community conservation plan on behalf of Butte County and the cities of Biggs, Chico, Gridley, and Oroville. C0002-139

C. Recreation

When the State Water Project first was constructed, one of the northern Sierrans' consolation prizes was to be the creation of a popular and accessible recreational resource. *See* 68 FERC at 62,448-49 & n.23. Though Butte County faces unanticipated burdens associated with recreational use—the original bargain didn't include local government assuming the financial burden of managing the recreational area—and although the present reservoir may be no more recreationally valuable than an undammed, free-flowing river would have been, the recreational area that does exist is used by Butte County residents and others. That recreational value must be protected and, if possible, enhanced through this proceeding. Some of the parties to the ALP process have sought to ensure such benefits, and Butte County appreciates their efforts, but several significant impacts or issues associated with recreation remain unaddressed. C0002-140

The comments in this section focus on impacts to recreational resources. In comments discussing part 5.9 of the DEIR, the county addresses the government service burdens created by the recreational facilities (or lack thereof).

1. The DEIR Must Discuss Recreation, Climate Change, and a Changing SWP

As with much of the DEIR, one of the most significant analytical gaps is the absence of discussion evaluating the connections between Oroville facility operations, climate change, changing SWP operations, and recreation. The DEIR should contain such discussion, for this changing context will affect the Oroville Project's recreational value and the impacts of the proposed project upon recreation. In combination with project operations, downstream operational changes and upstream changes in climate have the potential to increase water temperatures, lower average reservoir levels, increase fluctuations in reservoir levels, alter downstream flows, and increase or exacerbate water quality problems. All of those changes could cause secondary impacts on recreation. Changed water temperatures and highly variable levels could adversely impact fishing and increase algae blooms and other water quality problems. Lower water levels could compromise boaters' and swimmers' access to the water and impact the aesthetic experiences of people engaged in land-based recreation near Lake Oroville's shores. C0002-141

The DEIR does not discuss in any significant detail the effects of changing climate upon recreation, however, and does not discuss at all the potential effects of changing project operations. Nor does it assess the potential significance of such effects, or identify alternatives, mitigations measures, or management systems designed to allow the Oroville Project to continue operating amid changing conditions without adversely affecting the area's recreational value. The DEIR should be amended to include such information.

C0002-141 con't

2. The DEIR Must Discuss Measures to Avoid or Mitigate Swimming Area Closures

As discussed above in the water quality section, the DEIR proposes that DWR would address water quality problems in and around swimming areas by posting signage and potentially closing the swimming areas. Such closures would create significant adverse environmental impacts, for swimming areas are exceedingly valuable recreational resources, particularly in an area as hot as Butte County is in the summer. The DEIR does not acknowledge the significance of this potential impact, however, or explain why DWR believes the impact lacks significance. In fact, the recreation section of the DEIR does not mention this impact at all, and instead suggests that the only project impacts following from bacterial monitoring will be beneficial. *See* DEIR at p. 5.7-11.[36] Nor does it propose any measures to mitigate the impact of beach closures. If DWR continues to propose swimming area closures as its preferred response to poor water quality—which Butte County does not advocate; the county strongly prefers for DWR to solve the underlying problem—it must address the significant impacts of those closures, and comply with CEQA's mandate to explore methods of mitigation.

C0002-142

The DEIR therefore must be revised to include commitments to fully mitigate bacterial contamination. Those commitments should include a monitoring and education program, as DWR presently plans, but also must describe mechanisms other than closures for addressing contamination problems, and should include as a performance standard a commitment to maintaining existing swimming access.

3. The DEIR Must Discuss Mitigation Measures for the Proposed Foreman Creek Access Closure

The FERC staff alternative includes a temporary closure of the Foreman Creek boat launch area. The purpose of the closure is to allow time to develop a plan to protect cultural resources, which Butte County agrees is an important goal. However, closing

C0002-143

[36] Butte County agrees that implementing a monitoring program will have the beneficial impact of somewhat limiting exposures to polluted water, and for that reason strongly supports implementation of the program. But the program, unless combined with measures to actually improve water quality, also may lead to closures, which create negative impacts requiring mitigation. Closures also will not prevent exposures if people ignore or do not see the warning signs. Actually cleaning up the water would avoid those problems.

Foreman Creek will adversely impact recreational access, and those impacts must be disclosed and mitigated.

As the county and others pointed out during some of FERC's public meetings, the Foreman Creek boat launch area provides the only public access on the north side of Lake Oroville, and is used by many people—particularly low-income people who cannot use boats to access the lake, and families with children who enjoy the shallow water—as a swimming and recreation area. Closing the area will therefore have significant adverse impacts on recreational access. C0002-143 con't

The DEIR must discuss, and DWR must adopt, measures mitigating that impact. DWR should provide alternative access into the Foreman Creek, if that alternative access can be provided without endangering cultural resources. Alternatively, DWR should mitigate the loss of access at Foreman Creek by improving recreational areas and developing comparable access points elsewhere on the lake.

4. The DEIR Must Discuss the Recreational Impacts of Mercury Contamination

One of the most popular recreational activities in the project area is fishing, and at least some people who fish recreationally eat the fish they catch. Because of elevated mercury concentrations, however, eating some fish from the project area is not healthy. This contamination creates a public health and safety impact and a water quality impact, but it also creates a recreational impact, for it makes a popular recreational activity less appealing and safe. C0002-144

The EIR must address this recreational impact, and must describe ways to mitigate it. Those mitigation measures must go beyond just providing warnings, which can mitigate the public health risk but do not remove the recreational impact. But the DEIR's impacts section barely mentions mercury, and the recreation section does not discuss mercury at all.

5. The DEIR Improperly Defers Discussion of Instream Structural Placement Program Mitigation

As part of its habitat restoration efforts, DWR proposes to implement a "Structural Habitat Supplementation and Improvement Program," which involves placing dead trees in the Feather River to improve habitat and reduce erosion. That program should benefit fisheries but may negatively impact recreational safety. The DEIR acknowledges that the structures could harm boats and "could be a drowning hazard to swimmers and waders." DEIR at 5.7-15. That risk is serious; American Whitewater's website describes such trees—known in whitewater terminology as "strainers"—as one of "the most frequent killers" found in recreational rivers. *See* http://www.americanwhitewater.org/content/Wiki/safety:start. C0002-145

58

The DEIR should discuss the mitigation measures DWR will implement to reduce this impact to a less-than significant level. But the DEIR only states that such measures will be developed in the future. DEIR at 5.7-15. Then, without providing any information (other than a statement that temporary closures will occur during placement) about what those mitigation measures will be, and without defining any sort of performance standards for the measures it proposes to develop, the DEIR concludes that they will reduce impacts to a less-than-significant level. *Id.* The DEIR does not explain how a reader or decision-maker could possibly conclude that mitigation measures will succeed without knowing what those mitigation measures are. C0002-145 con't

Rather than leaving mitigation measures undefined (yet relying upon them to support a finding of no significant impact), the DEIR should discuss actual mitigation measures for the hazards created by the Instream Structural Placement Program, and should analyze the potential effectiveness of those measures. If those measures might not fully mitigate the hazards created by the program, or if DWR is unsure how effective they will be, the DEIR must treat those hazards as potentially significant impacts.

D. Government Services

DWR's future operation of the Oroville Project will create a variety of potential environmental impacts that some governmental agency must mitigate. Project-related traffic will deteriorate county roads, for example, and if roads are to remain functional and safe someone must perform maintenance work. Project-related recreation facilities will draw crowds, and if the project environment is to remain attractive, someone will need to remove the debris that some of those visitors inevitably will leave behind. If recreation in the project environment is to remain reasonably safe, someone must provide backcountry search and rescue services, and each rescue effort tends to be labor-intensive and expensive. *See* Operational Impacts Report, Appendix B, at 24-29. As in any recreational area, law enforcement and judicial services also will be necessary to maintain a safe environment; some illegal activity already occurs in the project area, and in the absence of a police presence there could be much more. Government services, in short, are necessary to mitigate what otherwise would be negative environmental impacts of the proposed project. C0002-146

A CEQA lead agency must provide such mitigation. The act requires mitigation of the adverse environmental impacts of a project, and that obligation extends to providing or funding government services of the sort necessitated by the Oroville Project. *See City of Marina v. Bd. of Trustees of Cal. State University*, 39 Cal. 4th 341 (2006). In *City of Marina*, the California Supreme Court held that a university was responsible for mitigating impacts upon local infrastructure and government service needs, including road maintenance and upgrades and enhanced fire protection services. The court found that the university could fulfill that obligation by funding the other local agencies' mitigation efforts, but it rejected the university's argument that because those local governments would carry out the mitigation, the lead agency had no obligation to pay. *Id.* at 359-61, 366-67. That holding is only fair; if a lead agency's project will cause

environmental impacts that someone must mitigate, the lead agency cannot reasonably disclaim responsibility for supporting those mitigation efforts. C0002-146 con't

As explained in detail below, the DEIR does not propose mitigation measures that would fulfill that obligation. The DEIR does not fully disclose the level of local government services necessary to avoid adverse environmental impacts in the project vicinity, or the amount of money Butte County spends to provide those services. Where it does acknowledge government service needs, the DEIR incorrectly dismisses those needs as not deriving from the project, or as too small to be worth considering. Consequently, the DEIR, much like the EIR challenged in *City of Marina*, relies on the flawed assumption that a lead agency may force others to mitigate project-specific impacts without compensation. C0002-147

1. The DEIR Improperly Excludes Within-County Users from its Impact Calculations

In assessing project-related demand for county services (and also in assessing impacts to county roads), the DEIR attributes no project-related effect whatsoever to travel to the facility and use of the facility by residents of unincorporated areas of Butte County. The DEIR's justification for this conclusion is an assumption that county residents would recreate somewhere else in the county if the Oroville Project did not exist, and would create equivalent or greater government service burdens in so doing. That assumption, in DWR's view, justifies a finding that impacts deriving from county residents' activities are in no way attributable to the Oroville Project. In fact, DWR claims to have overestimated project impacts by including service demand from residents of incorporated areas of Butte County. C0002-148

Although it states that assumption repeatedly, the DEIR provides no supporting analysis or empirical data. That is a significant omission, for the assumption is counterintuitive; people's recreational choices usually have something to do with the facilities available. Absent some sort of empirical verification, DWR cannot know if county residents would recreate just as much, in the same places, and in ways that create the same government service burdens in the absence of the project, and has no basis for asserting that the project has no effect on in-county recreation. C0002-149

Nor should DWR make that assumption, because while DWR does not know whether, where, or with what impacts visitors would recreate in the absence of the Oroville Project, it does know that those people who recreate at the Oroville Project are there because the Oroville Project exist. Whether they come from the county or not, they go to project campgrounds and picnic facilities, tow their boats on access roads, and occasionally require rescue from project waters and trails because the project exists. The DEIR therefore must consider the impacts of all Oroville Facility users. C0002-150

2. The DEIR Improperly Analyzes Government Services and Cumulative Impacts

In addressing the impacts upon government service demand, the DEIR fails to follow the proper procedure for evaluating potentially cumulatively significant impacts. CEQA requires lead agencies to consider, in evaluating the significance of project impacts, whether project-specific impacts, in combination with the impacts of other past, present, and future projects, collectively create significant adverse environmental impacts. That inquiry guards against the possibility that agencies will ignore or easily rationalize incremental additions to already-major problems, and reflects CEQA's drafters' awareness that "environmental damage often occurs incrementally from a variety of small sources." *Communities for a Better Environment v. California Resources Agency*, 103 Cal. App. 4th 98, 114 (2002). Because of that obligation, a lead agency cannot dismiss a project's contribution to a larger impact just because that contribution will be small in comparison to the larger impact as a whole, or to other contributing sources. *Id.*; see also *Kings County Farm Bureau v. City of Hanford*, 221 Cal. App. 3d 692, 718-24 (1990). Cumulative impacts decisions have rejected that approach as fundamentally inconsistent with the purposes of a cumulative impacts analysis.

In discussing the impacts that affect demand for government services, however, the DEIR utilizes that improper approach. It repeatedly states that any new impacts associated with new licensing terms, or with renewing old license terms amid population growth, will be small in comparison to existing impacts, and therefore will be insignificant. As the DEIR puts it, "because annual changes in projected visitor and project-supported resident populations are expected to be small relative to existing visitor and resident populations, public services effects would be minor." *See* DEIR at pp. 5.9-11, 5.9-12. But even if the perpetuation of existing service demand is properly treated as an existing impact—a questionable premise, because future demand will flow from future operations under the new license—the relevant question would be whether increased demand, in combination with the demand created by past, present, and other future projects, creates a potentially significant environmental impact, not whether increased demand will be small in relation to demand that already exists. C0002-151

If the DEIR asked the correct question, the answer would be obvious: any project-related environmental impact that increases Butte County's service obligations even slightly is a significant impact, for those obligations already are overwhelming the county. As the county has extensively discussed in its filings before FERC, it is an economically disadvantaged county with a small tax base, and it already struggles to provide the government services necessary to prevent the project environment from becoming an unsafe or unappealing recreational environment. To add additional obligations onto those burdens is highly significant to the county, and will adversely affect the county's already-limited ability to serve its citizens.

3. The DEIR Should Clarify Its Description of Fire Response Levels of Service

61

On page 5.9-7, the DEIR states that CDF strives to achieve a 95-98 percent success rate for initial attacks on fires. The DEIR should acknowledge that CDF relies on assistance from the Butte County Fire Department, which provides support to CDF at the county's expense, in achieving those success rates. C0002-152

4. The DEIR Overstates Services Provided by the City of Oroville

On page 5.9-7, the DEIR states that the City of Oroville provides public services to the "project area." While that statement is literally true, it is incomplete. The DEIR should clarify that the City of Oroville has jurisdiction over only 0.7 percent of the project area (as defined by FERC), and that almost all of the local government services provided to that project area are provided by Butte County. C0002-153

5. The DEIR Should Clarify How Project Impacts Were Calculated Without Visitation Projections

On page 5.9-9, the DEIR states that "visitation projections beyond 2020 are not available for this analysis." The DEIR purports to determine impacts through the term of the proposed license, however, and that term would extend well past 2020. DWR needs to explain how visitation-related impacts can be calculated without visitation projections. C0002-154

6. The DEIR Improperly Focuses on The Relative Burden Attributable to Project Visitors

In assessing the impact of project-related visitors, the DEIR suggests that the impact will be minor because the number of visitors-per-day is relatively small in comparison to total county population. There are several problems with this calculation. C0002-155

First, the DEIR uses an irrelevant comparison. It looks at average numbers of visitors to the project area—an area for which the only local service provider with significant responsibilities is the county—and compares that number to *total* county population, rather than just the portion of the county population in unincorporated areas actually governed by the county, and which the county's budget is designed to support. C0002-156

Second, this approach ignores the fact that the county does not have the luxury of dealing with only a steady, average number of visitors. Visitors use the project year-round, but at some times of year, visitation is much heavier than others, and the county therefore must be prepared to provide service levels sufficient to meet peak demand rather than just a more predictable average daily number. C0002-157

Third, this approach is inconsistent with CEQA's prescription for analysis of potentially cumulatively significant impacts. DWR should evaluate whether the incremental increase in service demand is significant, given the already-major service burdens the county must meet. To argue that the increment is insignificant because the county already has other significant service burdens turns the analysis on its head. C0002-158

62

7. The DEIR Cannot Limit Analysis to Impacts "Solely Attributable" to the Project

In characterizing some impacts to government service needs as minor, the DEIR relies on the fact that impacts "solely attributable" to the project would be small. DEIR at p. 5.9-14. The implied premise of this conclusion is that impacts *partially* attributable to the project need not be considered. That premise is inconsistent with the basic principles of a cumulative impacts analysis. Such an analysis is necessary precisely because a project sometimes is partially responsible for impacts also partially attributable to other projects, and even if the individual shares may seem small, the collective effects may be major. C0002-159

8. The DEIR Inaccurately Describes the Distribution of Service Burdens

On pages 5.9-14 and 5.9-15, the DEIR's analysis reiterates and relies on some of the earlier discussion of the allocation of government service burdens in the project area. Please see the county's comments on chapter 4 for corrections of the DEIR's statements about those service burdens. C0002-160

9. The DEIR Inaccurately States that Butte County Did Not Respond to DWR's Funding Offer

On pages 5.9-15 and 5.9-16, the DEIR describes a funding offer made by DWR to Butte County. DWR claims it received no response to the offer, and that the offer, if accepted, would have reduced impacts to a less-than-significant level. That discussion is partially inaccurate and leaves out key portions of the story. C0002-161

The assertion that the offer, if accepted, would mitigate project impacts to a less-than-significant level is false, as these comments and the county's other filings have repeatedly explained. For that reason, Butte County initially allowed the offer to expire. At a subsequent meeting on June 29, 2006, DWR director Lester Snow reiterated the offer to county representatives. Paul McIntosh, who at the time was the county's Chief Administrative Officer, immediately responded that the offer was insufficient to mitigate project impacts, and declined the offer. The DEIR therefore should not say that the county never responded. C0002-162

10. The DEIR Fails to Quantify Service Costs

The population, housing, and public services chapter draws numerous conclusions about the importance of the service burdens that the Oroville Project create for Butte County. Nowhere in the chapter, however, is there any analysis quantifying the costs of those service impacts, let alone comparing quantified costs to some sort of objective significance standard. For example, the county's costs for policing the project, providing fire response services, providing search and rescue services, or providing road maintenance all are dismissed as insignificant without any quantification. C0002-163

63

The data to support such quantitative analyses do exist. Butte County has repeatedly provided FERC and DWR with studies documenting the costs imposed by the project upon Butte County. *See, e.g.,* Operational Impacts Report, Appendix B. Moreover, because Butte County actually deals with those impacts on a day-to-day basis, and must factor them into its budgeting and planning, it knows better than any other agency or entity what the real costs are. Rather than relying on general, qualitative, unsupported statements, the EIR therefore should incorporate the information already provided by Butte County. C0002-164

11. The DEIR Fails to Discuss Movement of the Emergency Operations Center.

Prior to construction of the Oroville Project, Butte County located its emergency operations center (EOC) near the City of Oroville. At that time, no flood risk affected the facility. But construction of the project placed the facility directly at risk from a dam failure or major spill event; in 1997, during a major precipitation event, DWR actually asked the county to evacuate the emergency operations center, and thus leave it unmanned and abandoned during precisely the kind of emergency event in which the center must be operative. *See* Operational Impacts Report, Appendix B, at 49-52. That risk may increase in the future, as changing runoff patterns associated with climate change increase the risk of major spill events or misjudgments about the reservoir's ability to absorb flood flows. C0002-165

The county has proposed a straightforward mechanism to mitigate this risk: DWR could provide funds to construct the EOC in a safer location. That mitigation measure is only fair; because DWR's Oroville Project created the risk to the county's EOC, DWR should take responsibility for addressing that risk. But the DEIR does not consider that possible mitigation measure. C0002-166

12. Although the DEIR Claims Declining Annual Visitation Based Upon Data to 2001 in its Recreation Visitation Models, Inclusion of Later Years Reveals a Substantial Increase in Visitation.

DWR developed two separate annual recreation visitation models for the Lake Oroville area and the Thermalito Forebay area. The models showed that the trend in visitation between fiscal years 1981-82 and 2000-01 was negative at both Lake Oroville and at the forebay. SP-R12 Report (May 2004) at pp. B-17 to B-18. Both DWR and the State Water Contractors used the model results to "talk down" the need for additional recreational facilities during the ALP process. They posited that additional recreational facilities were not needed because of this negative trend in the number of annual project visitors. But there was an increase of over 1 million in recreation/visitor days between 2001 and 2002, an increase of over 140 percent in attendance in one year, which DWR never explained and never attempted to reconcile the pre-2001 estimates. DWR also never updated the models to include the 2002 and 2003 numbers. C0002-167

64

Despite reminders from Butte County, DWR chose to ignore the recreation attendance data that DWR must report to FERC. Every two years, DWR is required to file with FERC a report tabulating and summarizing attendance data collected at the recreational areas of the Oroville Facilities to comply with FERC Order No. 2100-054, Paragraph (J). The following table summarizes the numbers reported in the four biennial reports for the years 1999 through 2006: C0002-168

Calendar Year Reported	Number of Recreation/Visitor Days Reported by DWR	Notes
CY 2006 [6th Biennial Report filed 4-3-07]	1,468,115	Excludes Feather River Fish Hatchery and Dispersed Use Sites, which totaled 179,205 recreation days in SP-R9 Report.
CY 2005 [6th Biennial]	1,509,020	Excludes Feather River Fish Hatchery and Dispersed Use Sites, which totaled 179,205 recreation days in SP-R9 Report.
CY 2004 [5th Biennial Report filed 4-26-05]	1,460,731	Excludes Feather River Fish Hatchery and Dispersed Use Sites, which totaled 179,205 recreation days in SP-R9 Report.
CY 2003 [5th Biennial]	1,704,799	Excludes Feather River Fish Hatchery and Dispersed Use Sites, which totaled 179,205 recreation days in SP-R9 Report.
CY 2002 [4th Biennial Report filed 4-14-03]	"modestly less" than CY 2001	SP-R9 reported recreation days of 1,727,686 based upon recreation season of May 15, 2002, to September 15, 2002 (959,774 recreation days), and off-season of September 16, 2002, to May 14, 2003 (767,912 recreation days). SP-R9 Table 5.1-1.
CY 2001 [4th Biennial]	700,000	Appears to include OWA and Thermalito Afterbay visitors. DWR Bulletin 132-02 reported CY 2001 recreation days at Lake Oroville and Thermalito Forebay of 645,700 and at Thermalito Afterbay and OWA of 260,000.
CY 2000 [3rd Biennial Report filed 3-26-01]	483,066	Excludes OWA and Thermalito Afterbay visitors
CY 1999 [3rd Biennial]	473,221	Excludes OWA and Thermalito Afterbay visitors

13. DWR Fails to Credibly Disclose How Its "Indirect Population" Numbers Were Derived.

On page 5.9-2, DWR states that it derived project-related population estimates for 2002 of 2,360 people based on estimates of spending by out-of-county visitors and for O&M that were developed for the PDEA for Study Plan R-19 (SP-R19). SP-R19 C0002-169

65

analyzed two categories of the Project's fiscal impacts on local government service costs: (1) "Visitor-driven costs," which included fire, law enforcement, and road maintenance costs generated solely by non-residents who visit the Oroville Facilities; and (2) "Indirect (growth-related) costs," which included "fire, law enforcement, and road maintenance costs, indirectly generated by the population growth spurred by [a] visitor spending and [b] O&M spending." SP-R19 at p. 4-2.

C0002-169 con't

The population growth associated with the project includes residents who, for example, use county roads year-round. During the ALP process, the county made verbal and written requests to DWR to provide the county information on what constituted the "indirect population" that creates these indirect effects. In other words, the county asked how many people constitute the indirect population, and how was that number calculated? However, DWR continually declined to provide that information. Instead, the DEIR references a 2002 number of 2,360 people and a 2020 number of 3,160 people (p. 5.9-5). Neither the DEIR nor any of DWR's prior study reports or public filings with FERC show how the numbers were derived. The DEIR also recognizes that the indirect population numbers "were generated by *internal calculations* of the economic-fiscal model developed for Study Plan R-19." (Emphasis added.) DEIR Section 5.9.1.3, p. 5.9-2.

C0002-170

14. The DEIR's Conversion of Recreation Days to Visitor Days to Assess Visitation Impacts to County Roads is Without Merit; Use of Weekday Visitations is Misleading when Weekend Day Visitations are Substantially Greater.

DWR invokes an alleged difference in recreation day and visitor days when it would reduce its assessment of adverse project impacts, but otherwise DWR uses the terms interchangeably.[37] Butte County has previously pointed out to DWR that DWR itself states in its biennial reports to FERC (footnote 1 on the "Summary" page) that the terms are interchangeable. For example, in Third Biennial Recreation Report (3/20/2001), footnote 1 states, "A 'visitor-day', in this report *interchangeable with* 'recreation-day', is defined as a visit by one person for recreation purposes for all or part of a 24-hour day." (Emphasis added.) In the Fourth, Fifth, and Sixth Biennial Recreation Reports, footnote 1 was changed to read, "A 'recreation-day', in this report *interchangeable with* 'visitor-day', is defined as a visit by one person for recreation purposes for all or part of a 24-hour day." (Emphasis added.)

C0002-171

On page 5.14-3 of the DEIR, DWR states, "Average daily visitation during the 2002-03 recreation seasons (May 15 through September 15) is estimated to be 6,724 recreation days on a weekday basis. (Weekdays are used to characterize visitation here because baseline traffic volumes and LOS established by most regional transportation

C0002-172

[37] The SP-R9 Final Report itself defines "recreation day" as "one person visiting for any length of time on one day." SP-RP Report at p. RS-2.

planning agency, including BCAG, reflect weekday data)." However, the unadjusted use of regional transportation planning agency weekday data for a project with a 47 percent greater daily weekend use is misleading. DWR fails to disclose in the DEIR that the current average daily visitation during that same period on a weekend day basis is estimated to be 9,874 recreation days, a 47 percent greater daily use than on weekdays. SP-R9 Report Table 5.1-1, p. 5-2. The increase from 6,724 to 9,779 weekday recreation days under the Proposed Project is a 45.4 percent increase. The 45.4 percent increase as applied to weekend days of 9,874 would result in a weekend day increase to 14,357. Accordingly, the use of only the lower 6,724 weekday number is misleading and significantly under-estimates the adverse impacts of project visitors on county roads. C0002-172 Con't

In addition, DWR on page 5.14-3 states, "[t]o account for use of multiple facilities within the recreation area on one day by the same visitor, 'recreation days' were converted to 'visitor days.' An equivalency factor of 0.627, which was derived by TCW Economics using data compiled from responses to the Onsite Visitor Survey conducted for the Oroville Facilities Relicensing, was used for this conversion."[38] DWR's conversion factor does not appear to be consistent with the earlier statement that visitor days and recreation days should be interchangeable.[39] C0002-173

In sum, DWR's adjustment of recreation days, and use of only the much lower 6,724 weekend day figure, significantly underestimated the adverse impacts of project visitors on county roads. See DEIR, pp. 5.14-4 and 5.14-14. Applying the SP-R9 occupancy rate of 2.5 persons per vehicle to the Proposed Project's weekend day increase to 14,357 recreation days would result in an equivalent of 5,743 daily trips to, from, and between recreation sites. Indeed, even with DWR's revised 0.627 visitor day adjustment, the resulting number would be 3,601 daily trips. C0002-174

E. Environmental Justice

1. The DEIR Inaccurately States that the Proposed Project Will Benefit All Users, and the Public Generally.

[38] : SP-R19 Report, p. 4-27, "estimated 1,137,200 visitor days at the Oroville Facilities during FY 2002-03." Using SP-R9's recreation days number of 1,727,686, results in an equivalency factor of 0.658. SP-R9 Table 5.1-1, p. 5-2.

[39] Moreover, DWR's methodology should be reexamined, as it is not supported by the practical realities of visitor impacts on county roads. Recognizing the difference between impacts to county roads and impacts to State highways, two families in separate vehicles could have less impact on county roads than one family using county roads to drive between two different Oroville Facilities recreation sites. For example, two separate families visiting Thermalito Forebay right off State Highway 70 would have less impact on county roads than one family visiting Oroville Dam and then Thermalito Afterbay.

On page 5.10-2, the DEIR flatly asserts that "the Proposed Project is generally beneficial and affects all users equally," and on that basis concludes that no environmental justice impact will occur. That statement is false.

As these comments and Butte County's other filings have exhaustively demonstrated, operating the Oroville Project under the proposed license will not "affect all users equally" and will not be "generally beneficial" to everyone. The project will benefit the SWP's contractors, who will continue to receive low-cost, high-quality water, but it will not benefit Butte County. Instead, by continuing to compel Butte County to provide government services to the Oroville Project, the proposed project would sustain or even increase burdens upon the county. And because the county's population is disproportionately poor, and because the county already struggles to meet the government service needs of its poorer residents, those burdens will directly impact a disproportionately low-income group. C0002-175

DWR therefore must revise the environmental justice analysis. Rather than inaccurately asserting that the project causes no environmental justice impacts because it benefits everyone, the EIR must acknowledge that this project will cause an environmental justice impact because it will adversely impact a very poor county. The EIR also must discuss, and DWR ultimately must adopt, measures to mitigate those impacts. C0002-176

F. Air Quality

1. The EIR Must Discuss Potential Asbestos-Containing Dust Impacts

As discussed earlier, the DEIR should disclose the possibility of air quality impacts deriving from traffic on unpaved roads in areas with serpentinite formations. C0002-177

2. The EIR Should Clarify the Methodology for Calculating Mobile Source Impacts

On page 5.12-21, the DEIR states that air quality impact determinations were premised on assumptions that the project would lead to 500 additional trips per day, and that the average trip distance would be thirty miles. DWR needs to explain how these estimates were derived. C0002-178

G. Transportation and Traffic

1. The DEIR Uses a Flawed Methodology for Calculating Impacts to Roads

In calculating the impacts created by project-related traffic, the DEIR appears to assume that all vehicle trips create equal impacts, and that those impacts are similar to the impacts of average vehicles driving elsewhere in California. That assumption is flawed, and the flaws will lead to serious understatement of project-related impacts. C0002-179

Many of the trips generated by the project involve large vehicles. Recreational visitors commonly tow boats. Construction projects require trucks. Those larger vehicles create greater impacts to roadways, and thus create the need for more frequent road maintenance. By assuming that project-related traffic is similar to traffic in other areas, however, the DEIR ignores the impacts of the vehicles that actually drive through the project area, and understates overall impacts. C0002-179 con't

2. The DEIR Uses an Underinclusive List of Roads

Table 5.14-1 omits some county-maintained access roads (*see* comments on DEIR chapter 4's discussion of roads, *infra*), and should be expanded to include all of the county-maintained roads used to access the project. C0002-180

3. The DEIR Improperly Assumes that Project-Related Traffic Spreads Across All County Roads

In analyzing the traffic impacts, the DEIR asserts that project-related impacts will be less than significant because the "countywide traffic volume increase spread across all county roads would be too small to have a significant impact on operating LOS." *See* DEIR at 5.14-9. The DEIR does not explain the basis for assuming that project-related traffic will be "spread across all county roads," and that assumption is facially implausible. Project-related traffic is likely to occur on the subset of county roads that lead to the project. The relevant question therefore is whether increasing traffic on those roads will cause congestion impacts on those roads, not whether spreading an equivalent volume of traffic throughout the county would cause impacts. This section should be revised to address traffic impacts in the actual vicinity of the project. C0002-181

4. The DEIR's Analysis of Parking Impacts Uses Flawed Methodologies

On page 5.14-13, the DEIR states that the no-project alternative would cause no parking impacts because parking needs would increase gradually. This is a non sequitur. Parking impacts will occur if demand exceeds need, regardless of whether the exceedance evolves gradually or quickly. The DEIR should evaluate the relationship between need and demand rather than the pace at which demand will change. C0002-182

Also on page 5.14-13, the DEIR asserts that the other project alternatives will have a beneficial impact on parking because they involve constructing new parking facilities. The EIR must analyze, however, whether the project alternatives involve creating enough parking facilities to meet future demand. If projected demand increases are greater than projected increases in parking facilities, a negative impact will result. C0002-183

5. The DEIR Improperly Assumes that no Impacts Arise from In-County Use

69

On page 5.14-13, the DEIR reiterates its assumption that no project-related impact could arise from driving from unincorporated areas of Butte County to the project. As discussed earlier, this assumption is flawed; DWR does not know that the same driving would occur absent the project. The Oroville Project channels all visitors onto specific county roads in order to reach the lake or other project recreational sites. Additionally, DWR cannot assume that drivers would use the same types of vehicles—they would not tow boats, for example, if there wasn't a reservoir to tow them to—or that they would drive on roads that require similar maintenance work. C0002-184

6. The EIR Should Not Use the CalTrans Traffic Index to Calculate Road Deterioration

On page 5.14-15, the DEIR uses a Traffic Index from the CalTrans Highway Design Manual to calculate the impact of project-related traffic, and on the basis of those calculations concludes that project-related traffic will have only insignificant impacts. That calculation is flawed, however, because it incorrectly assumes that the roads in the vicinity of the project were constructed and have been maintained in accordance with Highway Design Manual standards. C0002-185

In fact, most of the roads in the project area are old trails that were gradually improved over time. Many have exceeded their design life and are already in need of reconstruction, and very few were constructed in accordance with CalTrans standards or with equivalent durability.

In roadway design, the Traffic Index is used in combination with the R-value of a soil to estimate the approximate Gravel Equivalent needed to support the load. The formula is:

$$GR = 0.0032 (TI) (100-R)$$

If the TI is 7.5 and the R-value is 35 (which is too high in much of this area) the GE is about 1.5 feet. In the range of this TI, 1 inch of hot mixed asphalt concrete (AC) is equivalent to about 2 inches of gravel. Even if one assumed that the road had 4 inches of competent hot mixed asphalt concrete, not just the successive layers of chip seals found on many county roads, the aggregate base under the AC would need to be 10 inches thick. Very few of county roads have a section anywhere near this stout.

Because the county does not have sufficient funding to perform extensive maintenance, many of those roads also are in deteriorated condition. For all of those reasons, the roads are not able to withstand their current levels of use, and the DEIR's conclusion that additional use will not create significant adverse impacts rests on flawed assumptions. C0002-186

7. The EIR Should Clarify the Basis for Statements About Repair Practices and Oroville Project Contractors

On page 5.14-15, the DEIR states that "[l]ocally, the standard practice at the Oroville Project is to require that contractors repair any streets damaged by the local access activities of construction trucks." On that basis, the DEIR concludes that project-construction-related traffic will not cause any significant impacts. C0002-187

The DEIR provides no source support for this statement. DWR needs to provide documentation (1) that it actually includes this requirement in its contracts, and (2) that the requirement actually has been enforced.

In addition, even if this statement is true, it is not a basis for concluding that overall impacts will not be significant. While contractors may be required to repair damage obviously attributable to their vehicles, much of the damage to county roads occurs incrementally, and each contractor trip is likely to cause small increases that contractors could easily ignore. Those incremental increases add up to significant overall construction burdens, however, and the EIR must acknowledge those impacts. C0002-188

H. Water Temperatures and Rice Farming

On page 5.2 – 15, the DEIR states that: "Reductions in water temperature targets of 2°F at Robinson Riffle would likely result in either no water temperature change or in the worst case scenario a less than 2°F reduction in water temperature at the agricultural diversions during the rice analytical period under the initial new license operating period as compared to the Existing Condition."

That statement is inaccurate. Based on the results of the 2005 conducted by UC and funded by DWR as well other reports referenced in the DEIS (page 11.25), a 2 F degree drop in water temperature would in fact result in measurable yield loss in some rice fields. For example, a mid-field sample location at a 2005 study site in the Western Canal District experienced 420 hours of water temperature less than 65 F during the period from planting to panicle initiation. Mutters, 2007 (Appendix H). Based on a modeled yield response function validated with in-field data, this resulted in a 3 percent yield reduction. A 2 F degree reduction in water temperature at the same location would result in 519 hours of exposure to water less than 65 F. *Id.* The projected yield loss would increase to 47 percent. At the same location, the hours below 65 F for the water entering the field would increase from 1494 to 1726 should the temperature decrease by 2 F. *Id.* A 2 F degree reduction is not necessarily inconsequential. C0002-189

On page 5.2 – 18, the DEIR states: "Implementation of the potential future facilities modifications under the Proposed Project may result in either beneficial *or less-than-significant effects* on agricultural—irrigation Basin Plan beneficial uses." Likewise on page 5.2 – 22, the DEIR states: "Therefore, *little or no water temperature-related effects on agricultural irrigation beneficial uses for rice production would be expected to* C0002-190

occur with the implementation of the Proposed Project initial new license operating period or after the potential future facilities modifications."

These statements are misleading. Significant detrimental effects on rice production are presently occurring. A more accurate statement would be "… no additional harmful effects…."

C0002-190 con't

VII. Comments on Chapter 6 (Other Statutory Requirements)

A. The Cumulative Impacts Chapter Uses the Wrong Analytical Methodology

Section 6.2 of the DEIR purports to provide an analysis of the cumulative impacts of the project. However, as discussed in part III of the county's general comments, that analysis relies on flawed methodology. Much of the analysis concludes that impacts created by the project are not significant because they are minor, or represent what DWR views as only a small incremental change. The whole premise of a cumulative impacts analysis, however, is that seemingly small incremental changes can collectively add up to something important, and therefore the fact that a change allegedly is small is no basis for concluding that it is insignificant.

C0002-191

B. The Cumulative Impacts Section's Cursory Discussion of Climate Change Does Not Meet CEQA's Requirements

Almost all of the DEIR's discussion of climate change occurs in the cumulative impacts section. It is not clear why DWR has relegated climate change discussion exclusively to this section, for all project impacts, including those that may be significant cumulatively and those that may be significant independently, will occur in the context of a changing climate.

C0002-192

Additionally, as discussed in section IV.A of the county's general comments, the discussion of climate change in this section does not meet CEQA's requirements. Rather than providing specific discussion of the impacts the project will have in the context of a changing climate, or explaining the extent to which climate change will inhibit the project's ability to meet water quality objectives or other goals for environmental outcomes, the analysis relies on exceedingly general statements. It also does not propose any project conditions or mitigation measures designed to ensure that the project operation amid changing climatic conditions does not cause significant adverse environmental impacts.

C0002-193

Some of the analysis also appears to be internally inconsistent. For example, in the discussion of water quality (pages 6.2-20 and 6.2-21), the DEIR asserts that it anticipates that the no project alternative would not change water temperatures "relative to existing conditions"—a statement that apparently implies that DWR does not anticipate climate change occurring. On the next page, in 1½-sentence evaluation of

C0002-194

climate change impacts on water quality in the project area, it mentions that water temperatures could increase. C0002-194 con't

C. The DEIR's Discussion of Cumulative Impacts and Water Quality Omits Important Information

In discussing cumulative impacts to water quality, the DEIR focuses almost exclusively on temperature. But while temperature is important, other water quality issues, including mercury contamination of the aquatic food chain, bacterial contamination of swimming areas, other sources of toxicity, dissolved oxygen levels, and electric conductivity all are also important, and require discussion. C0002-195

D. The DEIR's Discussion of Cumulative Recreational Impacts Is Unbalanced

In discussing cumulative impacts on recreation, the DEIR suggests that the Oroville Project's impacts on recreation have been overwhelmingly positive, and that the proposed project will only enhance those benefits. That discussion overlooks the negative effects created by the project. C0002-196

The creation of the Oroville Project had both positive and negative impacts on recreation. It created a reservoir, which people now use for boating, but it flooded a major section of the Feather River near the City of Oroville that had been used extensively for fishing, boating, swimming, and other recreational uses, and flooded a huge area of land that could have provided trail-based recreation.

Similarly, subsequent management has been a two-sided coin. In accordance with its license, DWR built many recreational facilities, but it also violated that license by failing to build many of the facilities it had committed to construct.[40] Its project may have created campgrounds, boating areas, and swimming areas, but by failing to ensure adequate policing and maintenance of those areas, DWR and its fellow state agencies diminished the quality of the recreational experiences they provide. The reservoir impoundment and subsequent stocking programs created a warm-water fishery, but by creating a sink for mercury-contaminated sediments, the project made fish less safe for fishermen to eat. C0002-197

[40] *See* 68 FERC at 62,441. The order states, in part:
In 1989, the Commission's San Francisco Regional Office informed the Director of the Division of Project Compliance and Administration of the Commission's Office of Hydropower Licensing (Division Director) that Cal Water Resources had failed to construct all of the recreation facilities in the approved recreation plan for the Feather River Project. As a result, the Division Director initiated an investigation, during which the licensee acknowledged that it did not fully implement the approved plan and asked that it be allowed to file, for Commission approval, a revised recreation plan that would supersede the approved plan.

The proposed project also would create both positive and negative impacts, though the cumulative impacts discussion mentions only the positive. DWR proposes post or close swimming areas, rather than cleaning up water, if bacterial contamination problems continue; to close the Foreman Creek access area; and to install structures in the Feather River that could create drowning hazards; and it has not proposed measures to ensure that the project area is adequately policed, or that the litter and crime problems in areas like the OWA do not continue into the future.

C0002-198

The cumulative impacts section's discussion of recreational impacts therefore should discuss both sides. DWR may appropriately discuss the elements of past and future project management that have supported or enhanced recreation, but it also must discuss past failures to provide promised recreational resources, and the aspects of past management and future plans that limit the recreational value of the project area.

Dated: August 17, 2007

Respectfully submitted,

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74

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75

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RESPONSES TO COMMENTS FROM BUTTE COUNTY

Response C0002-1:

As explained in Section ES.4 of the DEIR, the Relicensing process for the Oroville Facilities was conducted using FERC's Alternative Licensing Procedure (ALP) process. This was a collaborative process that was broad-based and involved a wide range of stakeholders. Butte County (County) was involved in the ALP from the very beginning and participated extensively in the formulating and reviewing studies, proposing and reviewing protection, mitigation, and enhancement (PM&E) measures. During the final phase of the negotiations, the ALP participants were asked whether they intended to enter into the Settlement Agreement (SA); Butte County indicated that it did not. At that point County representatives were asked to no longer participate. It should be noted, however, that Butte County actively participated in almost all of the settlement negotiations and the development of the proposed settlement actions, which are analyzed in the DEIR as the Proposed Project. Further, the County's legal representatives attended most all of the SA drafting meetings and had an active role in the drafting of the SA. As a result of their participation, additions were made to the SA during the drafting meetings.

Response C0002-2:

DWR's responsibilities under CEQA are to evaluate whether the Proposed Project has a significant environmental impact on the environment. The commenter appears to raise an issue outside the scope of the DEIR. Even so, the proposed Oroville Facilities operations do not perpetuate an unfair condition. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-3:

Butte County's willingness to support the original Oroville Facilities is an issue outside the scope of the EIR. Nevertheless, the Oroville Facilities have provided economic and recreational benefits to Butte County. Although the net fiscal impact on the County is greater than the sales tax revenues, sales tax revenues have reduced the total impact. In addition, the Oroville Facilities have resulted in the development of a major recreational benefit for Butte County and provides additional flood protection to Butte County residents. Butte County is also one of the 29 long-term water contractors with annual allocations of State Water Project (SWP) water. As such, residents of Butte County benefit both directly and indirectly from water deliveries and lower power costs that result from the Oroville Facilities. Numerous other benefits have also been provided by the Oroville Facilities, and more are provided as a result of the Proposed Project. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-4:

This commenter does not raise an issue related to the Proposed Project; the issue raised is outside of the scope of the DEIR. Even so, the recreation resources provided by the Oroville Facilities generate and support about 1.7 million recreation-days annually (see Relicensing Study Plan report R-9 [SP-R9], Existing Recreation Use, 2004). Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, and its discussion of benefits of the Oroville Facilities and the Proposed Project for more information specific to this comment.

As to the claim that DWR failed to build promised recreational facilities, the commenter raises an issue not related to the Proposed Project and that is outside of the scope of the DEIR; however, in the interest of full disclosure it should be noted that Relicensing studies have documented that existing facilities are generally sufficient or in excess of those required to meet current and future demand (SP-R8, Recreation Carrying Capacity, 2004; SP-R9, Existing Recreation Use Study, 2004; SP-R12, Projected Recreation Use, 2004; and SP-R17, Recreation Needs Analysis, 2004). Comparison of the recreation resources of the Oroville Facilities to other reservoirs in California also suggests that the Oroville Facilities are exceptional in the variety, capacity, and uniqueness of recreational opportunities offered. In the SA, DWR has committed, as part of the Proposed Project, to funding about $500 million of recreation enhancement and about $500 million in preservation measures for fish and wildlife and their habitat and for preservation and protection of cultural measures. Section 3.3.1.1 of the DEIR describes a number of interim recreation projects that a task force from the Relicensing Recreation and Socioeconomics Work Group recommended and DWR agreed to implement prior to receiving a new license. The projects include restroom upgrades, campground improvements, new trails, and over $5 million toward the funding of Riverbend Park.

Response C0002-5:

The commenter does not provide any evidence that the Oroville Facilities are "inadequately managed"; to the contrary, the value-added recreation experience ensured by stewardship by the California Department of Parks and Recreation (DPR) is a model highly respected in the nation. DWR does not agree that the Oroville Facilities have served as an economic drain. Please see Responses to Comments C0002-3 and C0002-4 and see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-6:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics for information relevant to this comment.

Response C0002-7:

FERC has clearly asserted that its jurisdiction over Project recreation facilities is generally limited to those facilities within the FERC Project boundary. DWR is in full compliance with its responsibilities under its current license and associated FERC orders. DWR has consistently asserted its awareness and commitment to proper management and funding of recreational facilities, including appropriate parts of the Oroville Wildlife Area (OWA), in the proposed Recreation Management Plan (RMP), and elsewhere. Confirmation of this responsibility has been added to Section 3.2.4.2. See Chapter 2.0 of this document for revisions to the DEIR. With regard to the services provided by the County, the Proposed Project would not lead to an increased demand for services that would result in a significant physical change to the environment. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-8:

Although the commenter raises an issue not related to the Proposed Project and that is outside of the scope of the DEIR, in the interest of full disclosure it should be noted that the evidence does not show that there is a double burden for the County. The DEIR provides a detailed quantitative and qualitative description in Section 4.9.2 of the allocation of responsibilities for providing public services in the Oroville Facilities Project area and in the surrounding area. The DEIR describes the important role that Butte County plays in providing law enforcement, fire protection, and emergency services in several parts of Section 4.9.2, including pages 4.9-7 through 4.9-8 and 4.9-13 through 4.9-15. Several agencies are responsible for providing law enforcement services in the Project area, as discussed on page 4.9-4 of the DEIR. To more accurately describe the role of various agencies, text on Page 4.9-4 of the DEIR has been modified. See Chapter 2.0 of this FEIR for edits to the DEIR.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-9:

The commenter confuses the issue by claiming that DWR could meet the County's needs at a fraction of the overall project costs. The issue is not whether the costs are small in comparison to overall costs, but whether there are any costs and whether there is a CEQA obligation to mitigate such costs if they exist. DWR does not agree that the Proposed Project would result in adverse physical impacts on the environment, nor does it agree that the Proposed Project would results in any unfairness or meet the test under *City of Marina v. Bd. of Trustees of Cal. State University,* 39 Cal 4th 341, 361–367 (2006), of significant impacts that would require mitigation.

The commenter misstates the holding of the *City of Marina* case. That case held that California State University, Monterey Bay, incorrectly concluded that it did not have the authority to mitigate environmental impacts caused by an increase in infrastructure facilities improvement as a result of implementation of its project. The case does not stand for the proposition that DWR is obligated to fund or provide services now provided by the County. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-10:

The issue is not whether the costs are small in comparison to overall costs, but whether there are any costs and whether there is a CEQA obligation to mitigate such costs if they exist. DWR does not agree with the County's characterization of the Proposed Project–related services, nor does it agree that there would be a significant adverse impact on the environment as a result of any increased service costs. See Section 5.9 of the DEIR and in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-11:

The range of alternatives in the DEIR is adequate and satisfies CEQA. The purpose of the requirement for an analysis of alternatives is to identify ways to avoid or substantially lessen the significant effects that a project may have on the environment while still achieving most of the basic project objectives. The range of alternatives is governed by the "rule of reason." "An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation." (State CEQA Guidelines Section 15126.6[a].)

DWR disagrees that "a project alternative that is fair to Butte County" must be evaluated in this EIR to comply with CEQA. This proposed alternative appears to be directed at alleviating purely economic concerns. Alternatives under CEQA, however, are intended to provide the public and decision makers with options for avoiding or minimizing significant adverse impacts on the physical environment. DWR does not agree that the current Oroville Facilities operations cause the magnitude of economic effects that Butte County claims. There is no requirement that the DEIR study an alternative designed around economics rather than environmental impacts.

Further, DWR is not relying on the County to subsidize the costs and mitigate the impacts of the Proposed Project.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-12:

The DEIR uses an appropriate methodology for assessing the impacts of the Proposed Project. The comment does not raise specific issues or concerns; therefore, no further response is necessary.

Response C0002-13:

The DEIR properly based its assessment of environmental impacts on measuring the effects of the Proposed Project against the environmental setting. Chapter 4.0 of the DEIR includes discussions of the existing physical conditions in the Project area by resource. These existing physical conditions include the physical consequence of implementing the existing license for the Oroville Facilities because this represents actual conditions "on the ground." Chapter 5.0 of the DEIR includes discussions of the Proposed Project's impacts by resource area, as measured against the existing physical conditions. This approach is compliant with CEQA and provides for disclosure of the incremental environmental impact of the Proposed Project, rather than artificially assuming that this previously licensed facility neither exists nor operates under a valid license.

The comment is incorrect in stating that the DEIR does not identify potentially significant effects associated with continuing to operate the Oroville Facilities based on the existing license terms into the future. The No-Project Alternative, defined in DEIR Section 3.3.1, is intended "to allow decision makers to better understand the environmental consequence of continuing to operate the project under the terms and conditions of the existing FERC license" (DEIR, page 3.3-1). Each resource area discusses the consequences of continued operations under the existing FERC license as compared to Existing Conditions.

Response C0002-14:

DWR concurs that it is possible that continued operations under an existing licensing scheme could have adverse environmental consequences. The DEIR addressed this possibility under the No-Project analysis and explained the basis for its conclusions. Please see Response to Comment C0002-13.

Response C0002-15:

This comment is discussing Existing Conditions and not the impacts that would occur from the Proposed Project or FERC Staff Alternative. Section 15125 of the State CEQA Guidelines describes the physical environmental conditions as they exist at the time the Notice of Preparation (NOP) is published as normally constituting the baseline physical conditions by which a lead agency determines whether an impact is significant. CEQA requires that an EIR discuss the significant environmental effects of the Proposed Project when compared to the Existing Conditions (i.e., baseline). Further, CEQA defines "significant effect on the environment" as meaning a substantial, or potentially

substantial, adverse change in any of the physical conditions within the area affected by the project. See State CEQA Guidelines Section 15382.

As described in Chapter 4.0, Environmental Setting, of the DEIR, baseline was established with the publication of the Amended NOP in February 2003. In the context of a pre-existing project, the existing physical conditions will include conditions associated with the operation of that pre-existing project. The existence of the Oroville Facilities and their current operations are part of the baseline environmental condition. The No-Project Alternative discusses future impacts from continued operation under the current license. The information Butte County seeks is in comparing the Proposed Project Alternative to the No-Project Alternative. The determination of significance is based on a comparison of the Proposed Project to baseline conditions; however, the decision-maker is also weighing the difference in impacts between the Proposed Project and the No-Project Alternative. Both are relevant.

Response C0002-16:

Please see Responses to Comments C0002-13 through C0002-15 for information specific to this comment.

Response C0002-17:

The comment correctly states that an EIR must focus on impacts on the existing environment, rather than on a hypothetical scenario. For this reason, the DEIR evaluated a No-Project Alternative to allow for a comparison of adverse and beneficial effects between the Proposed Project and continuing the existing license terms into the future. As explained in Response to Comment C0002-15, the Proposed Project incorporates beneficial measures designed to avoid, offset, and alleviate certain consequences of existing Project operations. These measures are part of the Proposed Project and are therefore not depicted as mitigation measures. The comment is therefore incorrect in stating that the DEIR has improperly avoided an evaluation of the entirety of a proposed new license. Further, this comment is general and does not point out a specific example where existing license terms that will be carried into the Proposed Project would have a significant effect on the environment that is not disclosed in the DEIR.

Response C0002-18:

The commenter cites *Communities for a Better Environment v. California Resources Agency,* 103 Cal. App. 4th 98 (2002). In *Communities for a Better Environment* the court stated "[A]nd the 'relevant' question under the *Kings County/Los Angeles* approach is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether 'any additional amount' of effect should be considered significant in the context of the existing cumulative effect. This does not mean, however, that *any* additional effect in a nonattainment area for that effect *necessarily* creates a significant cumulative impact; 'the one [additional] molecule rule' is not the

law" (*Communities for a Better Environment v. California Resources Agency,* 103 Cal. App. 4th 98, 120 [2002]).

The DEIR acknowledges on page 6.2-62 that the Proposed Project would add to the overall cumulative impact on local public service providers. However, based on all the specific quantitative and qualitative information discussed in the DEIR, it concluded that the impact is not cumulatively considerable and mitigation is not required. While the Proposed Project may add to the overall cumulative impact on local public service providers, the DEIR is correct in concluding that the "additional amount" should not be considered significant in the context of the existing environment.

Response C0002-19:

Please see Response to Comment C0002-18 and see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for information relevant to this comment.

Response C0002-20:

Please see response to Comment C0002-18 and see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for more information relevant to this comment.

Response C0002-21:

This comment references a potential increase in demands for services, rather than a physical impact to the environment that would occur as a result of the Proposed Project. Economic or social changes that a project may cause "shall not be treated as significant effects on the environment" (State CEQA Guidelines, Section 15131[a]). In other words, the economic or social changes that a project may cause are not, in and of themselves, significant environmental effects that require analysis in an EIR. Please see Response to Comment C0002-18 for a discussion about the adequacy of the cumulative impacts discussion, and see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for more information relevant to this comment.

Response C0002-22:

Analysis of the SWP is beyond the scope of the EIR. Section 6.4 of the DEIR provides a summary of predictions by currently available research about regional climate change that may be relevant to the Proposed Project from a cumulative perspective. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, and The Relationship between the Oroville Facilities and OCAP for additional information relevant to this comment.

Response C0002-23:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0002-24:

The climate change analysis in the DEIR is based on and consistent with the work performed by DWR on this topic. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

Response C0002-25:

Extensive temperature modeling was conducted in the Relicensing process that covers a wide range of hydrologic conditions. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

Response C0002-26:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0002-27:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0002-28:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0002-29:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0002-30:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0002-31:

The nature and severity of climate change are not known with enough certainty for an analysis with the specificity that the commenter suggests. The nature of potential climate change and resulting effects are as fully discussed as reasonable scientific

certainty of the potential future conditions allows. Climate change would not be an impact caused by the Proposed Project. However, the Proposed Project has been evaluated to determine whether future impacts of the Proposed Project would be more severe under climate change scenarios. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

Response C0002-32:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0002-33:

The DEIR is not predicated on the assumption of an unchanging climate. The DEIR recognizes and includes an extensive discussion on climate change. Additionally, historic Feather River flows, and thus inflows to Lake Oroville, have varied significantly from year to year, reflecting the highly variable climate in the region. Extensive operations modeling performed in support of both the Preliminary Draft Environmental Assessment (PDEA) and the subsequent DEIR reflects the above variability, analyzing 73 different inflow years into Lake Oroville; this covers a truly wide range of hydrologic conditions. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

Response C0002-34:

DWR acknowledges that climate change is real. However, local effects are not clear and the current models lack the resolution needed to determine impacts on a watershed level. The nature and severity of climate change is not known with enough certainty for a “detailed discussion” as the commenter suggests. The nature of potential climate change and its effects are discussed as fully as reasonable scientific certainty of the potential future conditions allows. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

Response C0002-35:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0002-36:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for information relevant to this comment.

Response C0002-37:

The DEIR appropriately addresses the relationship between the Oroville Facilities and downstream SWP operations. The release schedule at Oroville must meet a wide variety of criteria, with releases for exports in the Sacramento–San Joaquin Delta (Delta) being last on the list. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

Response C0002-38:

The commenter is correct that the SA was structured so as not to affect the SWP's ability to meet future water supply needs. This is not a prediction that the release schedules will not change in the future. DWR can only study and model what is currently known, or what can reasonably be foreseen to occur with respect to Project operating rules. It is not possible to predict all potential hypothetical future changes in SWP operating conditions, and how those changes might affect future Lake Oroville operations, within the context of this EIR. However, the SA has been developed to meet the needs of environmental needs first and foremost while allowing for flood control operations. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

Response C0002-39:

Any future changes in SWP operations materially affecting water deliveries, if outside the current authorizations, would be subject to a separate environmental review and likely a separate EIR. As noted in Response to Comment C0002-38, it is not possible to predict all potential hypothetical future changes in SWP operating conditions, and how those changes might affect future Lake Oroville operations, within the context of this EIR.

Response C0002-40:

The DEIR does not assume there will be no change to downstream needs in the future. It uses historical hydrology to simulate a range of future scenarios. That way DWR "tests" the ability of the SA to provide the expected benefits and what impacts on water supply and energy production would occur. Modeling scenarios utilized for the evaluation of the PDEA included future scenarios that assumed increases and changes in the timing of water supply demand patterns. The PDEA analysis was utilized for portions of the evaluation of the environmental effects in the DEIR. The PDEA modeling scenarios were applicable to the DEIR evaluation because the total flow releases from the Oroville Facilities did not change between the PDEA Proposed Action and the DEIR Proposed Project. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

Response C0002-41:

The objective of the Proposed Project as described on page ES-1 of the DEIR is accurate. The purposes referred to in the comment are the purposes of the Oroville Facilities themselves, not the Proposed Project.

Response C0002-42:

This comment misidentifies the Proposed Project and the scope of the DEIR. As noted on page ES-10 of the DEIR, the Proposed Project is the continued operation of the Oroville Facilities under a new FERC license pursuant to the terms of the SA. The operations of the SWP are outside of the scope of the DEIR.

The purpose of a project description is to allow an adequate evaluation and review of the environmental impact of a proposed project, and to help a lead agency develop a reasonable range of alternatives to evaluate in an EIR. *See San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 654. The project description fulfills this purpose, and the range of alternatives developed during the scoping process and evaluated in the DEIR is adequate. Please see Response to Comment C0002-11 for further information.

Further, while CEQA requires a statement of objectives in the project description, this requirement is a general one, and a lead agency has discretion to define what the objectives of a project are as long as those objectives allow for an adequate evaluation and review of the environmental impact of a proposed project. While there are no reported California cases directly on point, many cases decided under NEPA give considerable discretion to agencies to define the objectives of their projects.[1] See *City of Angoon v. Hodel* (9th Cir. 1986) 803 F.2d 1016 and *City of Carmel by-the-Sea v. U.S. Dept. of Transportation* (9th Cir. 1997) 123 F.3d 1142.

Response C0002-43:

The commenter is correct that the SA was structured so as not to affect the SWP's ability to meet future water supply needs. This is not a prediction that the release schedules will not change in the future. It is not possible to predict all potential hypothetical future changes in SWP operating conditions, nor how those changes might affect future Lake Oroville operations, within the context of the DEIR. Any future changes in SWP operations materially affecting water deliveries, if outside the current authorizations, would be subject to a separate environmental review. The subsequent environmental document would address any impacts. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

[1] "[S]ince CEQA was modeled on the National Environmental Policy Act…California courts have consistently treated judicial and administrative interpretation of the latter enactment as persuasive authority in interpreting CEQA." (*Del Mar Terrace Conservancy v. City Council* [1992] 10 Cal.App.4th 712, 732.)

Response C0002-44:

DWR considers all settlement concerns to be important. DWR also recognizes that the host county and other entities did not support the SA (although the nearest affected city, the City of Oroville, did participate in and support the SA). However, DWR does not consider the lack of support of all parties a reason to change the statement that the SA enjoyed near-unanimous support. All regulatory agencies agreed that the SA satisfied their regulatory responsibilities. This is important information and not at all inconsistent with CEQA's disclosure purposes. However, consistent with those purposes, information has been added to Chapter 2.0 of this FEIR, Executive Summary, to identify unresolved issues and recognize that Butte County did not support the SA.

Response C0002-45:

The comment suggests that the DEIR improperly uses incorporation by reference in Chapter 1.0. DWR disagrees. Section 1.7 of the DEIR explains that the DEIR relies in part on information collected during Oroville Facilities Relicensing studies, that such information is incorporated by reference, and that the public can access this information at DWR's offices (DEIR, pages 1-9 to 1-10). The purpose of listing and summarizing these Relicensing studies up front was to inform the reader of the types of information developed during the relicensing process that have informed the DEIR. The State CEQA Guidelines suggest that this type of incorporation by reference is appropriate (State CEQA Guidelines, Section 15150[f]). Where individual resource area analysis specifically relies on a particular Relicensing study, the text identifies the study and the relevant information from it, and explains how it was used in the analysis (State CEQA Guidelines, Section 15150[c]). DWR believes that the overall incorporation by reference, combined with the individual resource area discussions of this material, provides the reader with a sufficient road map to understand the basis of the DEIR analysis. (See *Vineyard Area Citizens v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442–443.) Regardless, the DEIR could have listed the Relicensing studies as general technical references without any descriptive information (State CEQA Guidelines, Section 15148.) Chapter 11.0 of the DEIR also lists the Relicensing studies as technical references to indicate that the Relicensing studies generally informed the development of the DEIR.

Response C0002-46:

Please see Response to Comment C0002-45. These reports are cited in Chapter 11.0 of the DEIR as information sources relied upon in drafting the EIR.

Response C0002-47:

The commenter cites no legal authority for the proposition that CEQA requires the EIR to include such a specific objective, and as explained in Responses to Comments C0002-41 and C0002-42, the objectives set forth in the DEIR are adequate.

Response C0002-48:

The Proposed Project would not heighten flood risk to areas in Butte County. As is the case with all major river systems, due to the possibility of extreme climatic events the probability of catastrophic flooding has always existed on the Feather River. This is evidenced by the County's assertion that flooding occurred in 1907 that prompted the residents to construct levees. The Oroville Facilities, by design, reduce the risk of flooding by a significant amount. Furthermore, Oroville Dam's spillway is designed to safely pass the Probable Maximum Flood (peak flow of 720,000 cubic feet per second [cfs]), a flood that is over two times the magnitude of the January 1997 flood. Therefore, the likelihood of a failure of Oroville Dam (and thus a large, uncontrolled release of water downstream) is very low—so low, in fact, that such a possibility is statistically not quantified. However, in standard dam safety and emergency preparedness protocols, significantly increased flood releases that would result if and when the emergency spillway at Oroville Dam is operated for flood releases suggest a precautionary and safe approach.

Response C0002-49:

The "Support for the Project" section was included as part of the ALP description, setting the Oroville Facilities Relicensing in context. Please see Response to Comment C0002-1 for a more detailed discussion of the ALP process. The commenter objects to the DEIR's characterization of the SA as enjoying "near-unanimous" support and states that the absence of support from the Project's host county and other entities is significant and leaves support a long way from unanimity. DWR considers all settlement concerns to be significant. DWR also recognizes that the host county and other entities did not support the SA (although the nearest affected city, the City of Oroville, did participate in and sign the SA). However, DWR does not consider the lack of support of some parties a reason to change the statement that the SA enjoyed near-unanimous support. All regulatory agencies agreed that the SA satisfied their regulatory responsibilities. This is important information and not at all inconsistent with CEQA's disclosure purposes. However, consistent with those purposes, information has been added to the FEIR to identify those participants who did not support the SA. See Chapter 2.0 of this FEIR for revisions to the text of the Executive Summary and Chapter 2.0 of the DEIR.

Response C0002-50:

Please see Response to Comment C0002-49. Also see Chapter 2.0 of this FEIR for revisions to the text of the Executive Summary and Chapter 2.0 of the DEIR.

Response C0002-51:

As noted earlier, Butte County was an active participant at the negotiations table until it indicated that it had no intention of signing the SA. Please see Responses to Comments C0002-1 and C0002-49 and see in this FEIR Chapter 3.0, Master

Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information specific to this comment.

Response C0002-52:

As stated in the DEIR, Section 4.9.2.1, page 4.9-7, the OWA presents law enforcement challenges. These challenges were also discussed in the report for Study Plan L-2 (SP-L2). FERC has clearly asserted that its jurisdiction over Project recreation facilities is generally limited to those facilities within the FERC Project boundary, which includes parts of the OWA. DWR is in full compliance with its responsibilities under its current license and associated FERC orders. As part of the SA, DWR has agreed to provide funding to DFG to manage appropriate parts of the OWA. An interagency agreement between DWR and DFG provides an estimated $850,000 annually to support 9.5 full-time positions (two of which are full-time peace officer positions), in part to provide additional public safety in the OWA. The additional DFG positions are expected to lead to a reduction on the demand for Butte County law enforcement services at the OWA. Please see the DEIR, Section 5.9.2.4, page 5.9-15, for a description of proposed funding by DWR.

DWR has consistently asserted its awareness and commitment to proper management and funding of recreational facilities, including parts of the OWA, in the proposed RMP and elsewhere. Confirmation of this responsibility has been added to Section 3.2.4.2. See Chapter 2.0 of this FEIR for revisions to the DEIR.

Response C0002-53:

DWR agrees that it is responsible for all project recreational areas, including parts of the OWA.

Response C0002-54:

Please see Response to Comment C0002-52.

Response C0002-55:

The range of alternatives in the DEIR is adequate and satisfies CEQA. The purpose of the requirement for an analysis of alternatives is to identify ways to avoid or substantially lessen the significant effects that a project may have on the environment while still achieving most of the basic project objectives. The range of alternatives is governed by the "rule of reason": "An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation" (State CEQA Guidelines, Section 15126.6[a]).

The Proposed Project, the FERC Staff Alternative, and the No-Project Alternative evaluated in the DEIR satisfy CEQA because in the unique context of the FERC Relicensing process, they offer a range of reasonable options with different environmental effects and benefits that fosters informed decision making and public

participation. The Proposed Project is the end product of a multi-year collaborative relicensing process involving a large group of stakeholders: federal, State, and local governments; resource agencies; federally and non-federally recognized tribes; nongovernmental organizations; local interest groups; and local residents. As discussed in Section 2.2 of the DEIR, DWR and the stakeholders considered an extensive array of alternatives for the Proposed Project, which were referred to during the relicensing process as protection, mitigation, and enhancement (PM&E) measures. Work Groups consisting of stakeholders evaluated all the proposed PM&E measures and recommended for further evaluation in DWR's PDEA those PM&E measures that could reasonably be expected to produce beneficial results or address potential project effects. The process also considered FERC requirements for hydropower relicensing. The stakeholders, including Butte County, then spent many months negotiating a comprehensive Settlement Agreement that eventually became the Proposed Project evaluated in the DEIR[2].

From the outset, the Proposed Project incorporates environmentally beneficial improvements that are specifically intended to avoid, offset, and mitigate anticipated adverse effects. As noted above, except as specified in the SA, the settling parties, including the regulatory agencies, believe that the measures contained in it satisfy their statutory, regulatory, or other legal requirements for the protection, mitigation, and enhancement of natural resources, water quality, recreation, and cultural and historical resources affected by the Oroville Facilities. The FERC Staff Alternative includes most of the measures in the Proposed Project, additional measures that in some instances are more protective of environmental resources than the Proposed Project, while eliminating measures outside FERC jurisdiction. This alternative represents a potentially feasible option for a new Oroville Facilities license in that FERC included it within the DEIS and FEIS that it completed for the Relicensing process.

Finally, the No-Project Alternative is part of a reasonable range of alternatives in the DEIR that provides for informed decision making because it evaluates continuing Oroville Facilities operations consistent with the terms of the existing license. The No-Project Alternative would therefore not include many of the environmentally beneficial actions incorporated in the Proposed Project and the FERC Staff Alternative.

In summary, in the context of FERC relicensing, the Proposed Project, the FERC Staff Alternative, and the No-Project Alternative provide a reasonable range of potentially feasible alternatives with different impacts and benefits sufficient to promote informed public participation and decision making.

[2] DWR recognizes that Butte County did not ultimately sign the SA. It should be noted, however, that the County actively participated in almost all of the settlement negotiations and the development of the proposed settlement actions, which are analyzed in the DEIR as the Proposed Project. Further, the County's legal representatives attended almost all of the SA drafting meetings and had an active role in the drafting of the SA. As a result of their participation, concessions were made to the County during the drafting meetings.

Response C0002-56:

As discussed in Response to Comment C0002-55, the range of alternatives contained in the DEIR is adequate. DWR disagrees that an "all parties benefit" alternative must be evaluated in this EIR to comply with CEQA. This proposed alternative appears to be directed at alleviating purely economic concerns. Alternatives under CEQA, however, are intended to provide the public and decision makers with options for avoiding or minimizing significant adverse impacts on the physical environment. Moreover, as explained in the FEIR, Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, DWR does not agree that the current Oroville Facilities operations cause the magnitude of economic effects that Butte County claims. There is no requirement that the DEIR study an alternative designed around economics rather than environmental impacts.

Response C0002-57:

As discussed in Response to Comment C0002-55, the range of alternatives contained in the DEIR is adequate. The Proposed Project itself serves the purpose of the alternative proposed in the comment because it includes operational flexibility to adapt to a wide array of future hydrologic conditions caused by climate change and will therefore allow for a balancing of upstream needs with downstream needs. Please see in this FEIR, Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, and The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

Response C0002-58:

As discussed in Response to Comment C0002-55, the range of alternatives contained in the DEIR is adequate. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, and The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

Response C0002-59:

The statement in the DEIR is accurate. It is appropriate to include the city of Oroville in the list of communities that benefit from the facilities' flood management functions. The 1907 and 1955 floods cited by the commenter had peak flows of 230,000 cfs and 203,000 cfs, respectively. Oroville Dam and its spillway have a design standard project flood with a peak flow of 440,000 cfs. The fact that no flooding or damages were reported in Butte County during the 1955 floods cited by the commenter does not constitute evidence that the county could never be affected by floods or that the levees built in 1907 would prevent any future flood damage. Since the dam was constructed the area has experienced higher flows than those cited by the commenter, which have been attenuated by Oroville Dam. Notably, in 1964 while the dam was still under construction, the embankment stored 155,000 acre-feet (af) of floodwater, reducing the peak flow from 250,000 cfs to 158,000 cfs and delaying the peak for about 20 hours

(U.S. Army Corps of Engineers 1970). More recently, the January 1997 Feather River flood had a peak inflow to Lake Oroville of 342,000 cfs, while downstream releases to the Feather River were limited to 160,000 cfs by Oroville Dam and its spillway.

Response C0002-60:

It should be noted that Section 15125 of the State CEQA Guidelines describes the physical environmental conditions as they exist at the time the NOP is published as normally constituting the baseline physical conditions by which a lead agency determines whether an impact is significant. As described in Chapter 4.0, Environmental Setting, of the DEIR, baseline was established with the publication of the NOP in 2001. The existence of the Oroville Facilities and their current operations are part of the baseline environmental condition. CEQA requires that an EIR discuss the significant environmental effects of the Proposed Project when compared to Existing Conditions (i.e., the baseline). Further, CEQA defines "significant effect on the environment" as meaning a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project (see Section 15382 of the State CEQA Guidelines). The comments are objecting to the Existing Conditions and not the changes proposed. Because those comments do not raise significant environmental issues related to the Proposed Project, no further response is necessary. However, in the interest of full disclosure, the following information is provided with regard to this comment.

As is the case with all major river systems, due to the possibility of extreme climatic events the probability of catastrophic flooding has always existed on the Feather River. This is evidenced by the County's assertion that flooding occurred in 1907 that prompted the resident to construct levees. The Project, by design, reduces the risk of flooding by a significant amount. Furthermore, the dam's spillway is designed to safely pass the Probable Maximum Flood (peak flow of 720,000 cfs), a flood that is over two times the magnitude of the January 1997 flood. Therefore, the likelihood of a failure of Oroville Dam (and thus a large, uncontrolled release of water downstream) is very low—so low, in fact, that such a possibility is statistically not quantified.

DWR has no records indicating that it recommended that Butte County personnel evacuate the Emergency Operations Center (EOC), and it is not aware of any other records indicating that it recommended an evacuation. It is DWR's policy that decisions to evacuate during flood emergencies are left to the local authorities. Local authorities are provided all pertinent operational protocols and kept apprised of flood operations and real-time storm forecasts as these events unfold.

Response C0002-61:

The inclusion of Oroville in the list of communities that benefit from flood protection is appropriate. Furthermore, the Oroville Facilities, by design, clearly reduce the risk of flooding. This benefit is easily quantifiable; in 1986 and 1997 flood inflows to Lake Oroville were attenuated by the Oroville Facilities, and the flood control releases were

roughly 50 percent less than the inflows. Please see Responses to Comments C0002-59 and C0002-60 above for more information specific to this comment.

Response C0002-62:

The FERC Project area is defined by boundaries discussed on page 4.0-2 of the DEIR. A decision to extend the study area to 0.25 mile beyond the FERC boundary was a study plan criterion established collaboratively by the Land Use, Land Management, and Aesthetics Work Group, in which Butte County actively participated, as described on page 4.6-1 of the DEIR. The introduction of DEIR Section 4.6, Land Use, makes it clear that the section provides an overview of land ownership, management, and land use patterns in the study area. The Project area/study area boundary limits are a study parameter and do not limit the area of impact analysis. The DEIR evaluated each resource area for direct, indirect, and cumulative impacts within the geographic scope of the Proposed Project.

Response C0002-63:

The paragraph described in this comment has been revised in this FEIR to include both the quantitative description requested and an additional qualitative description. See Chapter 2.0 of this FEIR for revisions to DEIR text. The commenter expresses concern about these figures and how they were determined because “DWR has used those visitation calculations to support other conclusions about project impacts and mitigation responsibilities.” The numbers used in the DEIR, Section 4.7 (the subject of this comment), are derived from SP-R13 and are used to illustrate the fact that the Oroville Facilities support significant in-county and out-of-county visitors. They were not used to support conclusions about Project impacts and mitigation measures. The numbers used to support the conclusions of impacts of recreation visitors on local services described in the DEIR, Section 5.9, are based on SP-R9 and SP-R12. These studies include visitors from outside of Butte County and from cities within the county in determining changes in demand for services. Therefore, the number of visitors used in determining impacts is greater than the numbers used in Section 4.7. The numbers in Table 4.4-1 from SP-R19 are derived from the SP-R9 and SP-R12 studies used to determine impacts of visitors on services and carry them further to determine costs of services.

Response C0002-64:

The submittal by Butte County to FERC focuses primarily on survey contact methods and mail survey follow-up, and mail survey response rate. Those comments misrepresent the survey methods and mail survey response rate, and set arbitrarily high standards for survey follow-up and response rates. The Recreation and Socioeconomics Work Group, with extensive involvement by the County, collaboratively developed 17 study plans to guide 17 separate but interrelated recreation studies. The results of these studies represent a comprehensive source of information far exceeding that collected by other recent prospective FERC licensees. DWR remains confident that the Relicensing study and visitor survey effort, far exceeding any standard

previously known set by any prospective licensee, represent the best quantitative information available and remains the basis for sound decision making. FERC reviewed the County's submittals referenced in this comment and agreed with DWR that the survey methodologies generally followed accepted practices (FERC FEIS, pages C-72 and C-73), including stating in a response to a comment on the FEIS (page C-72) that the survey response rate did not appear to be abnormally low. As discussed in Response to Comment C0002-63, the numbers in these surveys were not used to determine impacts on Butte County services.

Response C0002-65:

As discussed in Response to Comment C0002-63, DWR did not use the visitation calculations raised by this comment to support other conclusions about Project impacts and mitigation responsibilities. As discussed in Response to Comment C0002-64, DWR is confident that the studies represent the best analytical information available and remain the basis for sound decision making.

Response C0002-66:

The sentence on page 4.7-3 of the DEIR describing public access to Lake Oroville and other geographic areas within the Project area has been revised to clarify that these highways provide regional road access to the Lake Oroville vicinity. Please see Chapter 2.0, Section 4.7, of this FEIR for revisions to the DEIR text.

Response C0002-67:

The description of roads referred to in the comment is found in Section 4.7.2, Public Recreational Access and Facilities, of the DEIR. This discussion provides a general description of public access to recreational facilities associated with the Proposed Project. It is not a basis for determining impacts of the Proposed Project. A more complete description of the road network in the Oroville vicinity is provided in Section 4.14.2, Transportation System, of the DEIR. This section recognizes that the "[T]hree major highways provide regional transportation access to the Oroville Facilities area" (page 4.14-1) and acknowledges that "[T]he Oroville Facilities are accessed by various County roads and City of Oroville streets..." (page 4.14-2). The comment does not raise issues or concerns specific to the environmental analysis presented in the DEIR.

Response C0002-68:

The relevant discussion of Office of Environmental Health Hazard Assessment (OEHHA) health advisories found on Page 4.2-33 of the DEIR has been repeated in Section 4.7.2.2 of the FEIR. Please see Chapter 2.0 of this FEIR for revisions to the DEIR text.

Response C0002-69:

DWR recognizes its responsibilities with regard to funding and ensuring adequate management of the Oroville recreational facilities. Please see the discussion on this issue in Response to Comment C0002-52.

Response C0002-70:

The DEIR, Section 4.9.2, provides a detailed quantitative and qualitative description of the allocation of responsibilities for providing public services in the Oroville Facilities Project area and in the surrounding area. Several parts of Section 4.9.2 of the DEIR—pages 4.9-7 through 4.9-8 and pages 4.9-13 through 4.9-15—describes the important role that Butte County plays in providing law enforcement, fire protection, and emergency services.

DWR does not agree that these discussions underestimate the role performed by the County and the costs of that service. The DEIR does not imply that the burdens borne by the County are inconsequential or that they are largely supported through payments from elsewhere. Section 5.9 of the DEIR did appropriately conclude that the impact on the physical environment was less than significant. In its FEIS, FERC independently evaluated the methodologies and results of the two fiscal studies. In virtually every case, FERC concluded that visitor-driven cost and revenue estimates produced by DWR in SP-R19 (as modified in TCW Economics 2006) were more reasonable than those produced by the County in its Operational Impacts report. (See Table 69 on pages 335–337 of the FERC FEIS.) Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for information specific to this comment.

Response C0002-71:

As discussed in Response to Comment C0002-70, the DEIR provides an accurate disclosure of the role Butte County plays in providing government services related to the Project.

Response C0002-72:

As noted in Response to Comment C0002-8, the DEIR recognizes the joint relationship of all the law enforcement agencies (pages 4.9-4 and 4.9-5) and agrees that Butte County law enforcement plays an important role.

Response C0002-73:

The comment is correct in noting that several agencies are responsible for providing law enforcement services in the Project area, as discussed on page 4.9-4 of the DEIR. To more accurately describe the role of the Butte County Sheriff, however, text on page 4.9-4 of the DEIR has been modified to include the following statement: “Several agencies provide law enforcement services in the Project area.” See Chapter 2.0 of this FEIR for edits to the DEIR.

Response C0002-74:

While a very small part of the Oroville Facilities Project area is within the city limits of Oroville, Oroville does play an important role in providing law enforcement services, as described on page 4.9-8 in Section 4.9 of the DEIR. Thus, the DEIR's discussion of Oroville's law enforcement responsibilities is relevant to the Project area and to the surrounding area. No changes to the DEIR are required.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-75:

The DEIR, on page 4.9-8 of Section 4.9, includes a discussion of the law enforcement issues attributable to visitors to the Oroville Facilities who travel through Oroville. Additionally, the DEIR acknowledges that the OWA presents law enforcement challenges (page 4.9-7 of Section 4.9). No changes to the DEIR are required in response to this comment.

It is not clear what the commenter means by the statement that the EIR should not rely on a limited conception of the Project and the "project area" to avoid addressing those impacts and its reference to "study area." The FERC Project area is defined by boundaries discussed on page 4.0-2 of the DEIR. A decision to extend the study area to 0.25 mile beyond the FERC boundary was a study plan criterion established collaboratively by the Land Use, Land Management, and Aesthetics Work Group, in which Butte County actively participated, as described on p.4.6-1 of the DEIR. The Project area/study area boundary limits are a study parameter and did not limit impact analysis. The impact analysis covered all significant environmental impacts caused by the Project, whether they were within or outside of the FERC boundary.

The DEIR does not emphasize the city of Oroville's role, nor does it diminish the role of Butte County.

Response C0002-76:

The FEIR has been revised to state that "a portion" of the fines goes to Butte County. Please see Chapter 2.0, Section 4.9.2.1, of this FEIR for revisions to the DEIR text.

Response C0002-77:

Please see Response to Comment C0002-76.

Response C0002-78:

According to Robert Foster, the district superintendent for DPR's Northern Buttes District, the permanent full-time authorized law enforcement staffing levels provided by DPR to the Lake Oroville State Recreation Area (LOSRA) have remained the same for

the past 10 years. These positions include 11–13 rangers for law enforcement within the LOSRA, as reported on page 4.9-5 of the DEIR. It is true, as for all agencies including the Butte County Sheriff's Office, that positions are sometimes vacant while personnel are being recruited, interviewed, and tested; however, Butte County's comment fails to recognize that there are an additional eight DPR law enforcement officers assigned elsewhere in Butte County (outside of the LOSRA) and 700 other officers statewide to supplement law enforcement staffing at the LOSRA, if needed (pers. comm., Foster 2007a).

On busy holidays DPR provides 24/7 patrol coverage, and DPR also provides 24/7 patrol coverage on occasions when DPR deems that it is needed. Calls for response by the Butte County Sheriff's Office to incidents in the LOSRA between 2 a.m. and 7 a.m. do occur from time to time; however, according to DPR, these calls generally occur fewer than 12 times per year. In most cases, a DPR ranger is also called out to respond. In some cases, the California Highway Patrol (CHP) has covered calls during the overnight hours (pers. comm., Foster 2007a).

Response C0002-79:

Although individual duties vary greatly from park to park, in all cases the primary duty of DPR peace officers is public safety (California Penal Code, Section 830.2[f]). The 11–13 permanent full-time LOSRA rangers are assigned to strictly public safety duties for 85 percent of their time. Most non-public safety duties are provided by seasonal non–peace officer staff employed during the high-visitation season. During the very slow season for visitation at the LOSRA, the rangers cover some park administrative duties, but are always available to respond to public safety calls (pers. comm., Foster 2007a).

Response C0002-80:

DPR provides the vast majority of law enforcement services within the Project area and is usually the first responder to emergency and law enforcement calls within the Project area. This is further supported by the nearly 1,400 citations DPR rangers issued at the LOSRA from 2004 through 2006 (DPR incident database, provided in pers. comm., Foster 2007b). Visitor health and safety services provided by DPR, DFG, CHP, and the Butte County Sheriff's Department (under contract with DWR) meet all reasonable standards and needs within the Project area, and these significant law enforcement assets are provided at no cost to the County.

These providers also respond to incidents outside the Project area, including those within unincorporated Butte County. While many other examples can be cited, DPR rangers were the first emergency responders and peace officers on scene at the September 28, 2007, hostage incident at Las Plumas High School, which is outside of both LOSRA and Project boundaries. In practice, all law enforcement entities within the Project area operate under a general doctrine of "mutual aid." DPR rangers responded to 6,660 incidents from 2004 through 2006, including 312 calls outside of the LOSRA (DPR incident database, provided in pers. comm., Foster 2007b).

Response C0002-81:

The DEIR states on pages 4.9-4 and 4.9-7 of Section 4.9.2 (Public Services) that the Butte County Sheriff's Department assists with law enforcement in the Project area. As described in Section 4.9.2 of the DEIR and in Response to Comment C0002-80, several agencies, including the Butte County Sheriff's Department, provide law enforcement services in the Project area, and the level of service in the Project area, on a per-capita basis, is higher than it is elsewhere in unincorporated Butte County. Although the Butte County Sheriff's Office expends resources to assist with law enforcement in the Project area, the law enforcement services provided by DPR, DFG, and CHP, both within and outside of the Project area, may actually reduce the service burden on Butte County, particularly in areas adjacent to the LOSRA. At times, DPR is called by the Butte County Sheriff's Office or other agencies for backup on calls outside of the LOSRA (DEIR, page 4.9-6). Although adequate data on responses by State and local agencies to law enforcement calls within and outside of the Project area are not available to fully evaluate the net effects on agencies of responding to calls within and outside the Project area, all agencies benefit from this mutual-aid policy.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-82:

The level of law enforcement services in the LOSRA is actually higher than it is elsewhere in Butte County. As stated on page 4.9-5 of the DEIR, visitation levels and ranger staffing levels indicate a law enforcement service level of about 4.5 rangers per 1,000 visitors to the LOSRA. By comparison, Butte County had a law enforcement service level of 1.18 sworn officers per 1,000 population in 2005 (DEIR, page 4.9-7). The higher law enforcement service level in the LOSRA suggests that unincorporated areas of Butte County adjacent to the LOSRA may actually benefit from the presence of LOSRA law enforcement services provided by DPR rangers. For example, on occasion DPR is called by the Butte County Sheriff's Office or other agencies for backup on calls outside of the LOSRA (DEIR, page 4.9-6). As discussed in Response to Comment C0002-81, the law enforcement services provided by DPR, DFG, and CHP, both within and outside of the Project area, may actually reduce the service burden on Butte County. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-83:

As discussed on page 4.9-7 of the DEIR, the service demand on the Butte County Sheriff's Office generated by Project visitors is disputed by DPR, and the DEIR comes to no conclusion regarding this issue. Because the demand level is in dispute, the DEIR on page 4.9-7 presented both the call data provided by the Butte County Office of the Chief Administrative Officer in its *Operational Impacts of the Oroville Facilities Project*

on Butte County (February 2006), which states that the Butte County Sheriff's Office currently responds to "hundreds of calls" for service within the Project area each year, and the call information provided by Steve Feazel, LOSRA Park Superintendent (pers. comm., Feazel 2006), which states that Butte County Sheriff's Office personnel rarely enter the LOSRA to respond to law enforcement calls; that the Sheriff's Office has the option to decline to respond to calls in the LOSRA; and that the Sheriff's Office declined to respond to a call in 2006. These statements, as reported in the DEIR, are clearly intended to represent the perspective of Butte County and DPR concerning the law enforcement service demand on the Butte County Sheriff's Office generated by Project visitors.

Response C0002-84:

In Butte County's Operational Impacts report, which was appended to the County's DEIR comments (see Appendix A of this FEIR), the Butte County Sheriff's Office raised concerns about the security of Oroville Dam, claiming the need for additional staff and related expenses to provide a "minimum level security" for the Lake Oroville Operations Center. Despite the Sheriff's Office's assertions, the CHP has the duty and responsibility of providing protection to State property, including Oroville Dam (California Vehicle Code, Section 2400[g]). The CHP provides regular patrols of Oroville Dam and other critical Project facilities. In addition, under the supervision of the CHP, DWR contracts for private security services to patrol Oroville Dam. The CHP provides more than adequate security protection for Oroville Dam and related facilities.

Additionally, DWR coordinates with the federal government, the CHP, and the Butte County Sheriff's Office to ensure compliance with all security requirements under a host of highly classified programs of the U.S. Department of Homeland Security. DWR is in full compliance with all security requirements at Oroville Dam.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-85:

The sentence referenced by the comment (from page 4.9-5 of the DEIR) was meant to convey the fact that the direct court costs of cases handled by the Butte County Superior Court are funded by the State of California. The sentence, however, unintentionally leaves the impression that all costs associated with Butte County Superior Court cases are borne by the State of California. The County is correct in commenting that cases processed through the Butte County Superior Court may involve the County's jail system, its district attorney's office, its public defender's office, and other County services, and that the County provides these services without direct reimbursement by the State. Thus, the second sentence of the first full paragraph of page 4.9-5 of the DEIR has been revised. Please see Chapter 2.0 of this FEIR for revisions to the DEIR text.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-86:

This comment refers to Existing Conditions and not an impact of the Proposed Project. The existence of the Oroville Facilities and their current operations are part of the baseline environmental condition. CEQA requires that an EIR discuss the significant environmental effects of the Proposed Project when compared to the Existing Conditions (i.e., the baseline). Further, CEQA defines "significant effect on the environment" as meaning a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project. See State CEQA Guidelines Section 15382. However, for clarification purposes, page 4.9-6 of the DEIR has been modified. Please see Chapter 2.0 of this FEIR for revisions to the DEIR text.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-87:

As described in the DEIR on pages 4-10 through 4-12, primary responsibility for providing fire suppression and emergency medical services to the Project area and in the greater Oroville area is divided among State, federal, and local agencies, as mandated by State and federal laws and cooperative agreements with local agencies. In practice, fire protection and emergency medical services to the Project area and to the greater Oroville area are provided jointly by the California Department of Forestry and Fire Protection (CDF), Butte County Fire Department (BCFD), DPR, and the Oroville Fire-Rescue Department. Calls from the Project area are most likely to be rescue-related, with DPR and the CHP sometimes receiving the initial call, which may then be passed along to the most appropriate responder (Butte County Office of the Chief Administrative Officer 2006). Within the LOSRA, including Lake Oroville, DPR rangers who have emergency medical technician (EMT) or equivalent certifications are the first responders for emergency calls, according to the LOSRA park superintendent (pers. comm., Feazel 2006). (All DPR rangers are trained first responders or have EMT certification.) Additionally, CDF and BCFD personnel often respond to calls for emergency services in the LOSRA and are the primary responders to emergency services calls elsewhere in unincorporated Butte County.

As discussed on page 4.9-13 of the DEIR, BCFD "has primary financial responsibility for responding to structural fires and medical emergency calls in all unincorporated areas of Butte County, although DPR has primary responsibility for responding to emergency services calls in the LOSRA." This statement was not meant to infer that BCFD does not serve as the first responder for some of the emergency services calls in the LOSRA or that it does not bear the costs of providing requested emergency services in the LOSRA. In fact, the DEIR (page 4.9-15) included call data provided by Butte County.

According to DPR, BCFD decides what level of response to provide for 911 emergency services calls in the LOSRA. Regardless of how calls for emergency services in the LOSRA come in and are handled by the agency receiving the call, it is BCFD's decision regarding how it responds, and, according to DPR, this decision is made regardless of whether DPR rangers ask for BCFD assistance (pers. comm., Foster 2007a).

Additionally, as the DEIR notes on page 4.9-15, BCFD responded to 10,368 incidents countywide in 2004, indicating that the 51 emergency services calls in the Lake Oroville portion of the Project area accounted for less than 0.5 percent of BCFD's total calls in 2004.

Response C0002-88:

In its comment, Butte County incorrectly quotes text from the DEIR. Specifically, the word "usually" has been omitted. The actual text on page 4.9-12 reads as follows: "DPR *usually* transports medical emergency victims on Lake Oroville to appropriate boat ramps or marina locations where accident victims can then be picked up by local ambulance firms or Enloe Hospital resources, such as the helicopter" [emphasis added].

Response C0002-89:

This comment refers to the DEIR text quoted in Comment C0002-88, which was meant to generally describe how medical emergency victims on Lake Oroville are usually transported, and to describe who bears the financial responsibility for ambulance and hospital costs. The intent of this discussion was not to infer that BCFD personnel do not at times respond to these emergency calls or that Butte County does not absorb the costs of providing basic life support services when it responds to an emergency call at Lake Oroville. Additionally it should be noted that, as discussed in Response to Comment C0002-87, it is BCFD's decision as to how it responds to emergency calls in the LOSRA, and, according to DPR, this decision is made regardless of whether DPR rangers ask for BCFD assistance (pers. comm., Foster 2007a).

Response C0002-90:

The comment is correct in asserting that CDF provides only partial funding for the Butte Emergency Command Center. Thus, the text on page 4.9-12 of the DEIR has been modified to make it clear that CDF provides partial funding for the center. Please see Chapter 2.0 of this FEIR for revisions to the DEIR text.

Response C0002-91:

Information concerning the South County Interagency Fire Protection Agreement was included in SP-R19, Fiscal Impacts (page 4-10), and was incorporated into FERC's FEIS for the Oroville Facilities Project (page 332) in its description of public services. Information on the existence of the South County Interagency Fire Agreement was originally provided by Russ Fowler, battalion chief for CDF in Oroville, during a 2003 data collection interview conducted for SP-R19.

Page 4.9-12 of the DEIR has been modified to delete the reference to the agreement. Please see Chapter 2.0 of this FEIR for revisions to the DEIR text.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-92:

Please see Response to Comment C0002-91.

Response C0002-93:

The DEIR's description of the contractual relationship between Butte County and CDF is accurate; however, the discussion on pages 4.9-13 and 4.9-14 of the DEIR has been modified to make the description of this relationship more comprehensive. Please see Chapter 2.0 of this FEIR for revisions to DEIR text.

Response C0002-94:

Based on the information provided by the comment, page 4.9-14 of the DEIR has been revised. Please see in Chapter 2.0 of this FEIR for revisions to DEIR text.

Response C0002-95:

The comment by Butte County makes several contentions. The commenter contends that responding to 50 calls is expensive for a county already financially strapped. This comment addresses a larger fiscal situation concerning the County's ability to provide adequate public services throughout Butte County. The call-volume data presented on page 4.9-15 of the DEIR indicates that the burden added by providing fire protection and emergency services to visitors to the Project area is relatively small compared to the provision of services countywide (less than 0.5 percent of total calls). The County, however, goes on to suggest that calls to the Project area are more expensive than other calls in the county due to the rugged, remote nature of the Project area. The County's statement ignores the fact that terrain within the Project area is similar to terrain in the surrounding area, and that the terrain along the entire east side of Butte County becomes more rugged as elevations increase. This fact suggests that costs to respond to calls in the Project area may not be appreciably different from those in many other areas of Butte County.

Without knowing incident locations, it is impossible to determine that responding to most calls within the Project area is more expensive than responding to calls in other parts of the county. County filings on the FERC EIS indicate that information on incident locations is not available to the County. For example, Butte County's 2006 Operational Impacts report (page 11) points out the lack of information available to the County regarding the location of police and fire incidents relative to the Project boundaries:

> Second, to account for those Project-related costs that cannot be readily or fully documented (e.g., *police and fire departments do not break down all of their reports based on whether incidents occur inside of the Project Area*), the County determines the costs of providing services to that portion of the annual Visitor population at the Project that is associated with Non-Resident Visitors. [Emphasis added.]

Additionally, the unavailability of location-specific fire/emergency call data that are specific to the Project area is noted in a 2004 memo from Henri Brachais, fire chief, CDF/BCFD, to Rob Mackenzie, deputy County counsel: "Our Department does not keep statistics specific to the Relicensing areas, therefore we have no way of knowing how significant the workload is" (pers. comm., Brachais 2004).

Finally, the County states that its call volume numbers presented in the DEIR are conservative because calls from non-Lake Oroville areas of the Project area were not included. (This data limitation was duly noted on page 4.9-15 of the DEIR.) The County's comment, however, does not provide call volume data that are different from the data presented in the DEIR; therefore, no modifications to the DEIR are required.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-96:

DPR's estimate of BCFD's volume of calls for service in the LOSRA, described on page 4.9-15 of the DEIR, was provided by LOSRA park superintendent Steve Feazel (pers. comm., Feazel 2006). When contacted to confirm the call volume estimate, DPR responded that it stands by its estimate that BCFD personnel respond to only 20–25 calls for service within the LOSRA each year, based on notifications to DPR of BCFD responses (pers. comm., Foster 2007a). It should be noted that Butte County's estimate of its calls for service to the Lake Oroville portion of the LOSRA is also presented on page 4.9-15 of the DEIR. The DEIR does not attempt to resolve the differences between the call volume estimates provided by DPR and Butte County, which range from DPR's estimate of 20–25 calls to Butte County's estimate of 51 emergency services calls (in the Lake Oroville portion of the LOSRA) in 2004. Regardless of which estimate is deemed to be accurate, the calls represent less than 0.5 percent of BCFD's total calls in 2004, as discussed on page 4.9-15 of the DEIR. Additionally, it should be noted that DPR rangers responded to 3,017 incidents of all types during 2004, including 106 calls outside of the LOSRA, further indicating that DPR is the primary law enforcement and emergency services provider within the Project area (pers. comm., Foster 2007b).

Response C0002-97:

The comment refers to page 4.9-15 of the DEIR. The statement does not imply that CDF-paid personnel are those responding to calls for emergency medical services, as asserted by the comment. Instead, the word "contracted" was specifically used to identify these CDF personnel as those who are paid by Butte County through a contract with CDF, as described in Section 4.9.2 of the DEIR. No modifications to the DEIR are required.

This comment, however, raises the larger issue concerning the allocation of costs between BCFD and CDF. Because BCFD and CDF effectively operate as a single fire agency but financially conduct business as two separate fire agencies, the distinction between agency responsibility areas affects how fire stations are designated in Butte County, which, in turn, affects who bears the cost of responding to specific calls. As discussed on page 4.9-14 of the DEIR, fire stations with four different designations and financial arrangements may respond to calls within the larger geographic area that includes the Project area. Depending upon the time of the year, the type of call, and the location of a call in relationship to specific fire stations, both CDF-paid personnel and CDF personnel who are paid by Butte County through a contract with CDF may respond to calls.

For example, the State provides full staffing and operational funding for CDF/Butte County Amador Stations during the fire season (June 1–October 31). During this period, CDF personnel receive emergency response pay in addition to their base pay. During the non-fire season, Butte County continues to pay additional emergency response compensation for the CDF firefighters who respond to emergencies in the county. By comparison, the County bears all the year-round costs associated with BCFD stations. Firefighters assigned to BCFD stations work under contract with CDF, and all staffing and overhead expenses are allocated based on the Schedule A contract between Butte County and CDF.

Response C0002-98:

Page 4.9-17 of the DEIR under "Solid Waste" has been revised to update the information on waste contracts; please see Chapter 2.0 of this FEIR for revisions to the DEIR text.

Response C0002-99:

Page 4.9-17 of the DEIR under "Solid Waste" has been revised to correct the location of the landfill; please see Chapter 2.0 of this FEIR for revisions to the DEIR text.

Response C0002-100:

As discussed in Section 5.9.2 of the DEIR, the Proposed Project's effects on the demand for public services are anticipated to be minor; therefore, additional background discussion of the relationship between economics and County finances is not needed in

the DEIR to provide context for the minor Project-related changes in the demand for public services anticipated to be generated by the Proposed Project. Additionally, DEIR Section 4.9.2 provides a full description of the agencies responsible for providing public services in the vicinity of the Project area, providing adequate context for assessing the significance of public services impacts described in Section 5.9.2.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-101:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for information relevant to this comment.

Response C0002-102:

In this comment and elsewhere in its comment letter, Butte County claims that the Project has increased the demand for health and human services programs, causing a fiscal hardship for the County. The County asserts that construction of the Project drew workers to Butte County to help construct the Project facilities, and that subsequently thousands of people came to the county to take advantage of the houses that were abandoned or sold below cost after Project construction ended. Furthermore, because there were no jobs for these individuals, many became dependent, and remain dependent, on the County's health and human services, resulting in adverse fiscal effects on the County.

To support this contention, the *Operational Impacts of the Oroville Facilities Project on Butte County Operational Impacts* report appended to the County's comment letter (see Appendix A of this FEIR) states that after the height of Project construction in 1966 and 1967, Butte County's population decreased slightly to 100,200 in 1968 and 100,000 in 1969 before starting an upward trend in 1970s, indicating that many construction workers and their families chose to remain in the area and that vacated construction housing was filled by individuals who became dependent on the County's health and human services. The report adds that unemployment increased sharply after the construction of the Project, from 3,750 in 1968 to 6,775 in 1975.

A review of this and additional information, however, fails to support the County's contentions. For example, the fact that Butte County's population decreased slightly in 1968 and 1969 may indeed reflect an outward migration of workers as construction of the Project (Oroville Dam and related facilities) neared completion; however, the County provides no evidence that the upward trend in population growth following construction of the Project is related primarily to people moving into homes abandoned or sold following completion of construction. Indeed, Butte County's upward population trend in the 1970s could reflect many other regional and statewide growth factors. Between 1970 and 1975, nine of the Sacramento Valley's ten other counties experienced "upward trends" in their population growth, suggesting that factors other than those

associated with construction of the Oroville Facilities were in play that affected growth in Butte County and elsewhere in the Sacramento Valley.

Additionally, the unemployment trends cited in Butte County's comment letter and in its appended Operational Impacts report do not support the contention that the completion of Project construction directly resulted in increased unemployment and human and health services demands in the county. The unemployment data provided by the County's report, which originally came from the California Employment Development Department, shows that unemployment rates in Butte County in 1967, 1968, and 1969—the years during which the Project was being constructed—were 11.0 percent, 11.5 percent, and 10.9 percent, respectively. Subsequently, during the 4 years that immediately followed construction of the Project, when construction workers may have lost their jobs and when construction housing may have been reoccupied, unemployment in Butte County fell to 8.9 percent in 1970, rose slightly to 9.3 percent in 1971, and fell slightly to 8.8 percent in 1972, before rising to 10.1 percent in 1973. Thus, unemployment in 1973, 4 years following construction of the Project, was actually lower than during the latter years of construction, countering Butte County's argument that completion of construction immediately resulted in greater unemployment within the county. Again, other regional, statewide, and national trends affecting employment trends were in play.

Income statistics may provide an additional indication of how construction of the Project may have affected Butte County's economy and the demand for health and human services. For example, if completion of Project construction had resulted in declining economic activity, accompanied by increased unemployment, this effect should have been reflected in declining per-capita income in Butte County relative to statewide income.

To assess this indicator, decennial U.S. Census data on per-capita income from 1959 to 1989 for California and Butte County were compiled, and Butte County's percentage of statewide per-capita income at each 10-year interval was calculated, as summarized in Table 5.2-1 below.

Table 5.2-1. Per-capita income in California and Butte County: 1959, 1969, 1979, and 1989.

Year	Per-Capita Income in California	Per-Capita Income in Butte County	Butte County's Income Rank Among California Counties	Butte County's Percentage of Statewide Per-Capita Income
1959	$9,057	$7,185	44th	79%
1969	$11,374	$8,699	51st	76%
1979	$13,898	$11,240	42nd	81%
1989	$16,409	$12,083	44th	74%

Note: Income shown in 1989 CPI-U adjusted dollars.

Source: U.S. Census Bureau 2005

As the data in the table show, although Butte County's per-capita income has always been below statewide income levels, this condition existed prior to construction and operation of the Project in 1959 and persisted in the years following construction of the Project. For example, Butte County ranked 44th in per-capita income among California's 58 counties in 1959, 10 years prior to completion of Project construction, but improved to a rank of 42nd in the state in 1979, 10 years after project construction. Since 1959, per-capita income in Butte County has fluctuated relative to statewide levels, with little apparent connection to when Project construction was completed. As shown, per-capita income in the county, relative to statewide income, fell slightly from 79 percent in 1959 to 76 percent in 1969, the year construction of the Project was completed. By 1979, 10 years after Project construction, the County's per-capita income had increased to 81 percent of statewide income, which suggests, if anything, that completion of Project construction had little effect on the county's relative income levels. Additionally, between 1979 and 1989, the county's per-capita income fell back to 74 percent of statewide income, with this change obviously having no connection to Project construction.

In summary, as with trends in population growth and unemployment rates, trends in income growth do not support Butte County's contention that construction of the Project directly resulted in adverse long-term changes to Butte County's economy and to the related demand for County health and human services programs. The County's assertion that approximately $1.8 million annually is currently attributable to the existence and operation of the Oroville Facilities is highly speculative and is not supportable by available data. FERC agreed with this conclusion in the FEIS on the relicensing application for the Oroville Facilities, stating the following on page 340 of the FEIS:

> Butte County recommends that DWR pay $1,837,983 annually to Butte County to provide health and human services to a population that the County believes to be related to the project (Butte County 2006b). …We do not find the County's statements to be persuasive in attributing any share of health and human services spending to the project, and do not include any cost for these services in our cost estimate (table 69).

Regardless of Butte County's current fiscal condition, and even if Oroville construction contributed in any way to that condition, Butte County's "acute financial distress" does not change the DEIR's conclusions that the Proposed Project's public services impacts would not result in physical impacts on the environment and are therefore considered less than significant.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-103:

The DEIR acknowledges the low-income levels of Butte County residents on Page 4.10-5 of Section 4.10, stating, “Average per-capita income of residents of Butte County is significantly below regional, state, and national averages.” Butte County’s assertion, however, that low income levels and the related high demand for poverty services are partly attributable to the Oroville Facilities is highly speculative. Please see Response to Comment C0002-102 for a discussion of this issue.

This comment also refers to information in Butte County’s comment letter concerning the California Commission on State Mandates’ findings that Butte County has been in “acute financial distress” three times since 1996. As background, the California Commission on State Mandates can make a determination of significant financial distress for applicant counties seeking to reduce their general assistance standards of aid. The commission makes its findings based on Section 17000.6 of the California Welfare and Institutions Code. A county makes an application to the commission to receive a designation of "significant financial distress" so that it can reduce its general assistance payments to individuals. The commission evaluates the application, which includes information on the county's fiscal resources, then audits the county's finances, holds hearings, and makes a determination. If a county receives this designation, a county board of supervisors can take certain actions to reduce its general assistance standard of aid for a period of time.

The California Commission on State Mandates reviews a county's application to determine unmet needs for providing basic services. The commission considers the following factors when determining whether there are reasonable alternatives to the reduction of general assistance: evidence of unmet needs, budget forecasts, county efforts to constrain expenditures, flexibility in spending, flexibility in resources, and debt and cash flow.

Butte County received the "distressed" designation in 1996, 1999, and 2005. In making its 2005 determination, the commission concluded, among other things, that the County had unmet needs in basic County services totaling $17.5 million. The commission also found that the County had "resource flexibility" totaling $8.3 million that could be applied to meeting basic unmet County services needs, leaving a net unmet need of $9.2 million. Additionally, the commission concluded that Butte County's financial condition would begin to improve in 2006, based on budget forecasts provided by the County in its application. Therefore, the commission denied Butte County's request for a maximum 36-month determination, concluding that “there is insufficient evidence to grant this finding for more than 12 months. Should future circumstances warrant, the County may reapply to the Commission with facts to support extension of this 12 month finding” (California Commission on State Mandates 2005).

Although Butte County has had the option to reapply to the California Commission on State Mandates to extend its “distressed” designation beyond the August 30, 2006, expiration of the finding, it has not done so. According to Victoria Soriano of the California Commission on State Mandates (pers. comm., Soriano 2007), “Butte County

did not apply to have the 2005 designation extended beyond the 12-month period, and they have filed no new applications since 2005."

Butte County's decision not to reapply for the distressed designation may stem, in part, from the improved budget conditions anticipated by the California Commission on State Mandates in its ruling on Butte County's 2005 application. According to a November 6, 2006, article by Mary Weston in the *Oroville Mercury-Register*, Butte County's fiscal health has recently improved because of State subvention funding shifts and increased stabilization of State funding provided by statewide Proposition 1A, which was approved in 2004. In the article, Butte County Chief Administrative Officer Paul McIntosh said that Proposition 1A had helped Butte County become financially stronger. According to the article, McIntosh stated, "I'm glad to tell you we no longer need a defibrillator. The pulse of the county is good."

Regardless of Butte County's current fiscal condition, the past findings by the Commission on State Mandates concerning the County's "acute financial distress" do not change the DEIR's conclusions that the Proposed Project's impacts on public services would not result in physical impacts on the environment and are therefore considered less than significant.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-104:

It should be noted that Section 15125 of the State CEQA Guidelines describe the physical environmental conditions as they exist at the time the NOP is published as normally constituting the baseline physical conditions by which a lead agency determines whether an impact is significant. As described in Chapter 4.0, Environmental Setting, of the DEIR, baseline was established with the publication of the NOP in 2001. The existence of the Oroville Facilities and their current operations are part of the baseline environmental condition. Butte County's assertion that the County's relatively high poverty level and demand for County-funded health and human services is partially attributable to construction and continued existence of the Oroville Facilities is highly speculative and not supportable based on available data. Please see Response to Comment C0002-102 for a discussion of this issue.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-105:

As noted in Response to Comment C0002-104, the existence of the Oroville Facilities and their current operations are part of the baseline environmental condition.

Response C0002-106:

Butte County's assertion that completion of Oroville Dam construction in 1967 led to a dramatic increase in subsistence cases for the County is highly speculative, as discussed in Response to Comment C0002-105. As noted in Response to Comment C0002-104, the existence of the Oroville Facilities and their current operations are part of the baseline environmental condition. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-107:

Please see Response to Comment C0002-102 for a response to population and unemployment issues raised by this comment, and Response to Comment C0002-104 for a discussion of CEQA baseline.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information specific to this comment.

Response C0002-108:

Butte County's assertion that construction of the Oroville Facilities is responsible for a portion ($1.8 million) of the County's present costs for providing health and human services is highly speculative and is not supportable based on available data, and is outside the scope of this FEIR. Please see Responses to Comments C0002-102 and C0002-104 for discussions of issues related to this assertion.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-109:

The Proposed Project involves operational changes and recreational and environmental enhancements at existing facilities that would have no effect on lands being removed from County tax rolls. Consequently, the Proposed Project is not expected to have any effect on County property tax revenues.

Moreover, as noted in the May 26, 2006, TCW Economics report filed by DWR with FERC (TCW Economics 2006), Butte County's calculation of forgone revenues is based on some unsupportable methods and assumptions:

- Not taking into account the expected cost of providing services to the properties;
- Assuming that all of the Project lands would have been developed if the Project had not been built, even though much of the land occupied by the Project is located in rugged foothill locations with steep slopes;

- Applying a countywide average land valuation that likely results in a substantial overestimation of the assessed value of Project lands; and

- Assuming that all Project lands would be in private ownership, even though 9,000 of the 41,000 acres of Project lands are in public ownership within the Plumas and Lassen National Forests and other properties would certainly have been set aside for public purposes (streets and roads, parks, schools, and other public uses associated with urbanized development).

Additionally, it should be noted that only a portion of any forgone annual property tax revenues would be absorbed by County government because property tax revenues are shared among several agencies, special districts, and school districts. On average, the County received about 13 percent of property tax revenues generated within the county during fiscal year 2002-03. Although in its FEIS, FERC adopted Butte County's estimate of forgone property tax revenues ranging from an estimated $1.0 to $6.9 million annually, this estimate was based on incorrect information provided by the County to FERC staff in its comments on the DEIS, including information on how property tax revenue generated by an electric generation facility subject to State assessment, such as the privately owned Oroville Facilities, should be allocated among the jurisdictions in a tax rate area. Correcting for the incorrect information provided to FERC by the County results in an estimate of forgone property tax revenue ranging from $130,400 to $893,200, as originally estimated by FERC in its DEIS (page 330).

Although DWR as a State agency is exempt from property taxes, DWR annually provides services and funding that directly benefit the County and other local governmental agencies. The benefits are described in this FEIR. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-110:

Please see Responses to Comments C0002-102 and C0002-104 for a discussion of issues related to the County's assertion that the adverse impacts of project construction on the county's economy and fiscal condition linger to this day, and Response to Comment C0002-109 for a discussion of property tax–related issues.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-111:

The assertion that the Oroville Facilities have had a major negative impact on the County, including adversely affecting the County's ability to meet its social services obligations, is highly speculative and is not supportable based on available data. For more discussion of issues related to this assertion, please see Response to Comment C0002-102 on population, unemployment, and per-capita income and Response to Comment C0002-109 on forgone taxes.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-112:

As noted in Section 4.1.1 (Regional Geology) of the DEIR, "Approximately 85 percent of the upstream project area—the Feather River watershed above Thermalito Diversion Dam—is located within the metamorphic belt of the Sierra Nevada Geomorphic Province. The remaining 15 percent is located within the Cascade Range Geomorphic Province." The sentence on page 4.14-1 of the DEIR under Transportation and Traffic, Regional Setting, has been changed to reflect these facts. See Chapter 2.0 of this FEIR for changes to the DEIR text.

Response C0002-113:

As indicated in Chapter 2.0 of this FEIR, Section 4.14.3.2 and Table 4.14-3 have been revised to correct reference to Pentz Road and update the traffic volume data provided by the commenter. These revisions do not affect the impact conclusions reached in the DEIR and do not require further response.

Response C0002-114:

Table 4.14-3, provided on page 4.14-13 of the DEIR, has been revised to include additional road segments that provide access to recreational use areas or Project-related facilities. Almond Avenue, Walnut Avenue, and Welsh Road do not serve as access points and are therefore not considered relevant to the Proposed Project. Please refer to Chapter 2.0, Sections 4.14.3 and 4.14.4, of this FEIR for revisions made in response to this comment. These revisions do not affect the impact conclusions reached in the DEIR and do not require further response.

Response C0002-115:

The text provided on page 4.14-10 of the DEIR has been revised to acknowledge that funding constraints have affected continued planning and development of improvements on State Route (SR) 70. Please see Chapter 2.0, Section 4.14.3.1, of this FEIR for updated information on the planned improvements for SR 70 in the Oroville area provided in the 2004–2025 Regional Transportation Plan prepared by the Butte County Association of Governments (BCAG) (2004).

Response C0002-116:

The main point provided in the DEIR, that road use by Project visitors increases the County's need to regularly maintain these roads, is broad enough to include the commenter's point. The comment does not raise issues or concerns specific to the environmental analysis presented in the DEIR. No further response is necessary.

Response C0002-117:

The list of roads provided on pages 4.14-14 and 4.14-15 of the DEIR has been revised to clarify certain roadway segments and to include additional road segments that provide access to recreational use areas. Figure 4.14-5 has also been updated. Please note that Lumpkin Road is used for Project purposes up to Enterprise Road, which provides access to the Enterprise Boat Ramp. Almond Avenue, Walnut Avenue, and Welsh Road do not serve as access points and are therefore not considered relevant to the Proposed Project. Please refer to Chapter 2.0, Section 4.14.4.1, of this FEIR for revisions made in response to this comment. These revisions do not affect the impact conclusions reached in the DEIR and do not require further response.

Response C0002-118:

The sources of the traffic data used in Table 4.14-3 were correctly referenced on page 4.14-10 of the DEIR, including data from years 2001, 2002, and 2003. This list has been expanded to include 2004 data provided in above comments by the County on the DEIR. The sources cited at the bottom of Table 4.14-3 of the DEIR have been corrected. Please see Section 4.14.3.1 of Chapter 2.0 in this FEIR for revisions to DEIR text.

Response C0002-119:

The commenter is correct that level of service (LOS) data for roadway segments provided in the Regional Transportation Plan (RTP) and used for analysis in the DEIR are not refined to an intersection level of analysis. This clarification has been incorporated into this FEIR in Chapter 2.0, Section 4.14.3.2. An intersection level of analysis was not conducted for the DEIR due to the relatively small increase in traffic volumes and the broad distribution of traffic on the road network, and because available data cannot be used to accurately forecast hourly changes in volume at specific intersections that would be related to the Proposed Project. Consequently, reliance on the LOS for roadway sections described in Sections 5.14.3 and 5.14.4 of the DEIR analysis is considered adequate.

The comment does not provide evidence of any specific locations on the roads identified in the DEIR, or the additional roads identified in Comment C0002-117, where the intersection LOS would be worse than the overall LOS identified for the associated roadway segments, or where the LOS does not meet current standards.

Response C0002-120:

The first paragraph under Section 4.14.4.2 of the DEIR has been revised to clarify the ownership and maintenance issues related to bridges. Please see Chapter 2.0 of this FEIR for revisions to the DEIR text.

The comment does not raise issues or concerns specific to the environmental analysis presented in the DEIR.

Response C0002-121:

The roads maintained by the County relevant to the Proposed Project are addressed in Section 4.14.4.1 of the DEIR. However, for additional clarity, the sentence on page 4.14-17 of the DEIR addressing these roads has been revised. Please see Chapter 2.0 of this FEIR for revisions to the DEIR.

The comment does not raise issues or concerns specific to the environmental analysis presented in the DEIR.

Response C0002-122:

The DEIR adequately describes and analyzes the existing traffic volumes and expected change in traffic volumes related to the Proposed Project and Project alternatives. The text cited by the commenter was intended to characterize in a general manner the existing use of roads within the city of Oroville by visitors to the Project area, noting that visitors to the Oroville Facilities represent an estimated 12.5 percent of the population of Oroville. The general characterization of this use by visitors relative to others driving within the city of Oroville takes into consideration the fact that traffic within the city includes visitors and residents in private cars; visitors and others driving cars, trucks, or sport utility vehicles (SUVs) pulling boats or trailers; and local and regional truck traffic, including heavy trucks. In addition, cars, trucks, and SUVs pulling recreational boats are relatively light and would not normally present unusual maintenance issues on structural sections of paved roadways.

The analysis of traffic impacts presented in Section 5.14 of the DEIR is based on changes in traffic volumes, as calculated by LOS for various roadway segments, and is considered adequate and appropriate. It is acknowledged in the DEIR that a portion of the visitors to the Oroville Facilities tow boats or drive recreational vehicles, and that construction vehicles (truck traffic) would be needed to implement some of the Proposed Project activities as indicated in the DEIR, Section 5.14.3, page 5.14-4.

Response C0002-123:

The presence of naturally occurring asbestos (NOA) and the potential health effects associated with exposure to asbestos are addressed in Section 4.12.3 (Existing Air Quality—Toxic Air Contaminants) of the DEIR. Section 5.12.1.2 (State Plans, Policies, Regulations, and Laws) of the DEIR describes the State regulations related to the demolition, renovation, and disposal of asbestos-containing materials, as well as regulations specific to the use of serpentine aggregate and ultramafic rock for surfacing and for construction, grading, quarrying, and surface mining operations in areas of serpentine or ultramafic rock.

As described under Impact 5.12-c in the DEIR (page 5.12-14), the Proposed Project would not involve construction, quarrying, or improvement activities in areas known to contain NOA, and road maintenance activities would be consistent with relevant regulations and rules related to NOA. Because the Proposed Project is not anticipated

to result in a substantial increase in vehicle travel on the road segments crossing serpentine formations, long-term operations would not expose sensitive receptors to substantial concentrations of NOA or other toxic air contaminants, and the impact is therefore considered less than significant.

Response C0002-124:

As the text on page 4.15-1 states, "this [database] search indicates where there is some type of hazardous materials information, whether it relates to existing underground storage tanks, above ground storage tanks, hazardous materials handling, hazardous waste generation, or hazardous materials spill incidents." The types of incidents discussed in the comment, while not considered significant, are important and are handled "within the requirements of local, State, and federal laws and regulations."

The Emergency Action Plan for Oroville Field Division, Part 2 Emergency Response, Section 7 Hazardous Spill Response, provides a written process for responding to hazardous material spills, including those affecting waterways. This process addresses the procedures the Oroville Field Division will follow when a spill threatens the reservoir, Thermalito Afterbay, or the environment. In addition, the Oroville Field Division:

- Recently hired a supervisor-level employee to oversee the heightened security detail for the Project (chief operator, Security), and has increased the number of security personnel patrolling the Project;

- Maintains a contract with a hazardous-material control and removal service company for the express purpose of containing and removing and disposing of hazardous waste;

- Maintains a stock of hazardous-material spill clean-up supplies and regularly provides hazardous-material spill containment and clean-up; and

- Is fully compliant with Senate Bill 49 (Spill Prevention Control and Countermeasures Plan) at all site-specific locations.

Further, gasoline storage at the Lime Saddle and Bidwell Marinas is regulated by the State Water Resources Control Board (SWRCB). FERC also requires that fuel storage be in compliance with all local, State, and federal regulations. While plans and regulations alone cannot guarantee spill prevention, they establish minimum standards of actions.

In regard to illegal activity such as methamphetamine laboratory dump sites, the Oroville Field Division reports illegal dumping to the County for clean-up and has a support letter on file from BCFD to assist with clean-up of hazardous waste. This letter is dated December 1, 2001, and states that this team is available 24 hours a day to those who dial 911. Other illegal activities are reported to the appropriate agency.

Response C0002-125:

The County only mentions short hauls from remote locations and does not provide information to show that such short hauls are in any way connected to the Oroville Facilities. No modifications to the DEIR are required.

Response C0002-126:

The assertion that the DEIR and FERC's FEIS are inconsistent is unfounded. The DEIR and the FEIS each independently analyzed the effects of the Proposed Project on water temperatures in Thermalito Afterbay, specifically with regard to diversions for agriculture. The DEIR found that the Proposed Project would result in a small reduction in Oroville Facilities release water temperatures, and in fact found that water temperatures could actually warm at the agricultural diversions due to increased residence time of water in Thermalito Afterbay with the implementation of the Proposed Project (see DEIR page 5.2-15). The FEIS reached a similar conclusion. On page 100 of the FEIS, FERC wrote: "Even if less water would need to be released from the Thermalito Afterbay to meet temperature objectives in the high flow channel and other operational aspects of the projects were not drastically changed, water temperature in the afterbay would likely be very similar to what currently exists. Overall, we expect temperatures of water delivered to the agricultural diversion under the Proposed Action to be similar to current conditions."

With regard to the claim that the analysis and conclusions in the DEIR lack internal consistency, the County does not cite any specific examples of where such an inconsistency can be found in the DEIR.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

Response C0002-127:

The analysis of water temperature affects on rice production provided in the DEIR relied upon published research that is appropriately cited and supported in the DEIR. The literature cited or utilized in this comment is based on relationships of rice yields to cold water exposure. The literature relied on by the commenter contains useful information about the yield response of rice to cold water exposure; however, because the relationships defined are only specific to a location within a field, they are not useful for and cannot be applied to estimate the total or even relative yield loss that would occur overall within a field. Further, these relationships would not be applicable to estimate rice yield loss across the water districts that are supplied with water from the Oroville Facilities, nor would they be useful to estimate the change in rice yield loss for a field or across the water districts with any given change in cold water exposure associated with the implementation of the Proposed Project. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

Response C0002-128:

The agreement referred to in the County's comments is intended to address existing and potential future contractual issues between DWR and the water districts outside of the Relicensing proceedings; therefore, it is not appropriate to compare the situation of the water districts with that of Butte County.

Response C0002-129:

The quote cited in this comment, which originally came from an FMY Associates study commissioned by Butte County to rebut DWR arguments concerning the effects of the Project's water supply on agricultural property values, is taken out of context. The FMY Associates argument referred to in the comment was summarized by FERC staff in a section of the FEIS that deals with offsetting factors for lost tax revenue. DWR acknowledges the senior water rights of the rice farmers, and entered into settlement agreements with them that cover the substitution of deliveries from DWR in lieu of the districts' reliance on their water rights. This does not change the fact that the volumes of the agricultural diversions occasionally exceed the total inflows into Lake Oroville, which could not occur if it were not for the storage provided by the Project.

The Oroville Facilities Existing Conditions and the Proposed Project both result in a substantial benefit to irrigated agriculture benefits by increasing the reliability of the water supply. Without the storage that the Oroville Facilities provide, the senior agricultural water rights holders would not be able to reliably irrigate as many acres in some years as they do under current conditions. The benefit provided by the Oroville Facilities to the irrigated agriculture beneficial use is clearly of a significantly greater magnitude than the rice yield losses that are occurring from the water temperatures delivered from the Project. The DEIR, Section 5.13.3, discusses the increased reliability of water supply benefits to irrigated agriculture beneficial uses. The following discussion is intended to clarify and amplify the materials presented in the DEIR and includes a quantification of the benefits to irrigated agriculture that the increased reliability of water supply provides.

Figure 5.2-1 shows the average monthly agricultural diversion volumes from the Thermalito Afterbay (blue line) with average monthly Oroville Reservoir inflows (green line) and average monthly inflows less the minimum lower Feather River flow requirements (red line). The average monthly volumes were calculated based on the period from 1969 through 2005, utilizing data presented in the DWR response to the water districts' intervention letter, which was posted on the FERC website. During all water year types there is at least some period during which the agricultural diversion volumes exceed the flows that would be available for diversion from the lower Feather River without the Project. If the mandated minimum lower Feather River in-stream flow requirements are taken into account, the average agricultural diversion volumes exceed the average available water supply that would be available for diversion from the lower Feather River without the Project for 4 months of the year (period when the blue line of diversion volumes is higher than the red line of flows available for diversion).

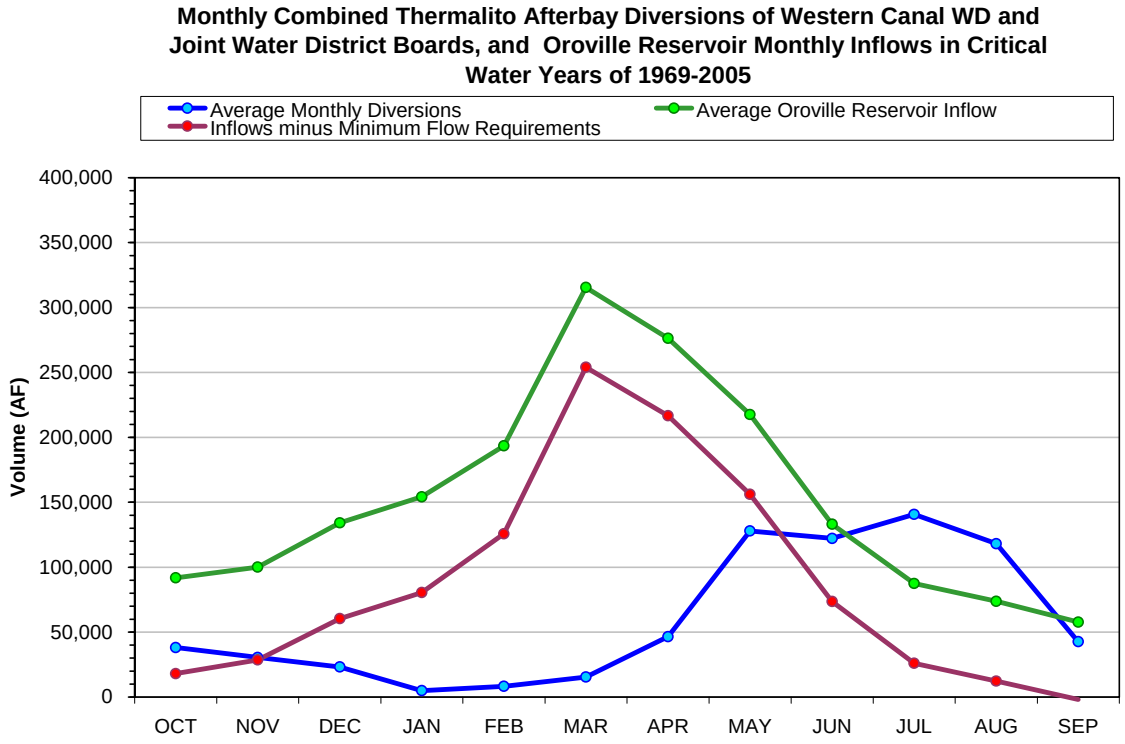

Figure 5.2-1. Average monthly volumes of Thermalito Afterbay agricultural diversions and average monthly Oroville Reservoir inflows.

Under those conditions when diversions exceed the potential supply (period when the blue line is above the green line in Figure 5.2-1), if it were not for the storage provided by the Project the farmers could not logically have diverted more water than would be in the river. It is also unlikely that, even with their senior water rights, the agricultural diverters would have been allowed to divert every drop of water in the river to the exclusion of all other designated beneficial uses, including fish and wildlife and downstream senior water rights holders (period when the blue line is above the red line in Figure 5.2-1). Even if the agricultural diverters were to divert the entire inflow, some acreage planted and farmed would have insufficient water to finish the crop season, resulting in catastrophic yield losses. It should be noted that the increase in water supply reliability is due to the water storage that the Oroville Facilities provide, and that it is that same storage that also provides the capability to release colder water (as mandated by DFG and NMFS) that can cause the cold water–related effects on rice yields.

If it were not for the increased quantity of water delivered to the water districts above their water rights, as defined in the delivery contracts with DWR, the rice growers would not have an adequate water supply to grow the full available acreage to produce their crops, as well as conduct the cultural practice of post-harvest flooding of their fields. Most water delivered to the water districts that is above the quantity available without the storage provided by the Oroville Facilities, as quantified in Figure 5.2-1, is utilized to

flood the rice fields to facilitate the breakdown of rice straw. This post-harvest practice of field flooding is utilized in place of the previous cultural practice of burning rice straw, which has been phased down to 25 percent of its previous levels by the California Air Resources Board due to air pollution and public health problems.

Benefits for rice growers from post-harvest flooding include improved decomposition of rice straw and the creation of seasonal waterfowl habitat. The improved decomposition of rice straw from post-harvest flooding reduces the number of cultivations required to break down the rice straw, which is a cultural-practice cost reduction (i.e., forgone tillage costs) and reduces the opportunity for soil compaction that can reduce rice yields. Without the additional water supply to support the cultural practice of post-harvest flooding, yields would be reduced as a result of additional soil compaction, and production costs would be increased as a result of the additional tillage required to break down the rice straw. Additionally, the improved rice straw decomposition reduces the amount of fertilizer required for the following season and reduces the over-wintering of pests and diseases, which can reduce yields or increase control costs during the subsequent growing season. Without the additional water supply to support the cultural practice of post-harvest flooding, yields would be reduced due to increased incidences of pests and diseases. Further, production costs would increase due to the need for additional fertilizer, pesticides, and fungicides.

The post-harvest flood-up water supplied by the Project also provides a significant benefit to the agricultural diverters by creating waterfowl habitat. This habitat, created by the post-harvest flooding, is a direct result of increased water supply from the Project, and provides a significant source of income for some rice growers. The habitat created by the post-harvest flooding allows farmers to lease duck hunting rights on their property. This provides a significant economic benefit to the rice growers and the entire local economy.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

Response C0002-130:

Figure 4.2-11 of the DEIR was not represented as depicting a consistent relationship between air temperature and water temperature. On the contrary, the figure was presented to illustrate the complexity and interactions of Project operations, agricultural diversion volumes, climatic conditions, and the resulting water temperatures. One year of data was adequate to illustrate the dynamic nature and interdependencies of these relationships.

Water temperatures of Project releases from Lake Oroville are managed for compliance with DFG and NMFS water temperature requirements at the Feather River Fish Hatchery and Robinson Riffle. It is these water temperature requirements that dictate the source water temperatures for the agricultural diversions in Thermalito Afterbay. Source water temperature, air temperature (or solar radiation), wind, diversion volumes, and residence times in Thermalito Afterbay and the district canals (which determines

the amount of warming of water that will occur prior to use) are all factors that affect the water temperatures at the inlets to the rice fields. The inlet to the rice field is where the irrigated agriculture beneficial use first occurs. Residence time of water in Thermalito Afterbay is dictated in part by the volumes of the agricultural diversions. The volumes of agricultural diversions exceed the total volume of releases of Thermalito Afterbay to the lower Feather River during some portions of the early water temperature–sensitive growth period for rice. When the volumes of agricultural diversions exceed volumes in the Thermalito Afterbay Outlet, the agricultural-diversion volumes are the dominant factor in determining the residence time of water in Thermalito Afterbay and, therefore, would be most responsible for the lack of water warming in Thermalito Afterbay prior to diversion. Of those four factors that determine water temperatures at the rice field inlets, DWR controls only one, source water temperature, and can influence only one other, residence time of water in Thermalito Afterbay.

The statement in the County's comments about the general relationships of air and water temperature vs. solar radiation and water temperature are correct. However, air temperature is well correlated with solar radiation in California's summer climate, and air temperature data were available at the Thermalito Afterbay location for purposes of this illustration while local solar radiation data were not. Additionally, air temperature can become a significant factor in the rate of heat gain in water under windy conditions, which occur frequently at Thermalito Afterbay. Air temperature is yet another variable in the relationships determining water temperatures that is outside of the control of the Project.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

Response C0002-131:

Contrary to the County's assertion, the statement that water temperature is only one of the contributing factors potentially affecting agricultural resources is accurate, as there are dozens of other production variables other than water temperature that are well documented to affect rice yields. The County's comment is not referenced, so it is uncertain which studies it may be referring to. The 2005 Cold Water Study conducted by the University of California with support from DWR was specifically designed to isolate yield variability due to cold water exposure, and a well-designed study will in fact isolate the intended study variable. However, this study did not attempt to correlate rice yield loss to any other production variable other than water temperature.

The County's assertion that other studies have documented that low water temperatures alone account for over 90 percent of the yield loss in rice fields is inaccurate. The studies referenced by the County's comment were conducted only where cold water was a dominant variable determining yield. Cold water exposure is only a successful predictor of yield loss where cold water is present in a field. In the absence of cold water, water temperature exposure is not a reliable predictor of yield loss. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship

between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

Response C0002-132:

The reference cited by the commenter has been corrected. Page 4.13-4 of the DEIR has been modified; see Chapter 2.0 of this FEIR for revisions to the DEIR text.

Response C0002-133:

The word "immediately" was used to convey the spatial relationship of cold water losses with respect to adjacency of the effect to the location of the irrigation inlet. Another description of the nature and distribution of the cold water effect within a field is included in the DEIR in Section 4.13.4: "Effects of cold water on rice yield tend to be localized near the field irrigation inlet, although effects have been observed in adjacent checks where cold water has seeped though the dividing levee (Mutters et al. 2003b)."

Response C0002-134:

The statement in the DEIR that this comment refers to is accurate. The County's own comments support that "some warming of water does occur in the conveyance system." The water temperature increase reported in the County's comments refers to the main canal and is not representative of the rate of heat gain/distance of district laterals or on-farm distribution systems.

Response C0002-135:

This comment does not present any specific information to support the assertion that the data confirm R. G. Mutters' observations. R. G. Mutters presented a summary of the results of the water temperature data in his unpublished analysis, but did not share the actual data. DWR has repeatedly asked R. G. Mutters to share the actual water temperature data, but to date has not received the data. Therefore, without the opportunity for independent review or analysis of the data, DWR is not able to determine whether the 2005 data confirm or are consistent with the 2000 and 2001 data collected by R. G. Mutters.

Response C0002-136:

It is true that no studies have been conducted to determine the correlation of increased water supply reliability and increased total rice production; however, it is a reasonable observation and assertion, given that with a less-reliable water supply, fewer acres of rice would tend to be planted in water years where water supplies would otherwise be inadequate to finish the irrigation season and substantial yield losses would occur. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

Response C0002-137:

It should be noted that Section 15125 of the State CEQA Guidelines describes the physical environmental conditions as they exist at the time the NOP is published as normally constituting the baseline physical conditions by which a lead agency determines whether an impact is significant. As described in Chapter 4.0, Environmental Setting, of the DEIR, baseline was established with the publication of the NOP in 2001. The existence of the Oroville Facilities and their current operations are part of the baseline environmental condition. CEQA requires that an EIR discuss the significant environmental effects of the Proposed Project when compared to the Existing Conditions (i.e., the baseline). Further, CEQA defines "significant effect on the environment" as meaning a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project. See the State CEQA Guidelines, Section 15382. The comment is objecting to the Existing Conditions and not the changes proposed. Because the comment does not raise significant environmental issues related to the Proposed Project, no further response is necessary (see the State CEQA Guidelines, Section 15088). However, in the interest of full disclosure, DWR provides the following response to this comment.

DWR acknowledges that FERC will require a water quality certification by the SWRCB, which in turn must determine that the Proposed Project will comply with appropriate requirements of the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan), including that the Proposed Project will meet the water quality objectives set forth in the Basin Plan. The SWRCB was an active participant in the ALP process, with direct input during the development of study plans, evaluation of study results, and development of the water quality monitoring plan designed to monitor water quality parameters of interest to the SWRCB. The DEIR (Section 4.2.2) presents a discussion of specific water quality parameters measured during Relicensing studies. As described in Section 5.2.2.1 of the DEIR, DWR evaluated the Proposed Project for compliance with all water quality objectives in the Basin Plan as well as other applicable federal, State, and local plans, policies, regulations, and laws. Compliance with water quality standards, including the Basin Plan–designated beneficial uses, was one of the impact thresholds utilized in the DEIR. A lengthy discussion of the Existing Conditions with regard to beneficial uses is included in Section 4.2.2.1 of the DEIR. Table 4.2-3 in the DEIR contains a description presenting water quality objectives, standards, and criteria, including maximum contaminant levels (MCLs). Section 5.2.2.5 of the DEIR evaluates compliance with all Basin Plan beneficial uses and water quality objectives.

DWR is committed to remaining in compliance with the Basin Plan. For example, as described in the SA, Article A112 is an expanded water quality monitoring and reporting program, and two articles (SA Articles A113 and A114) were developed and incorporated into the SA to address the potential increase in the number of recreationists exposed to health risks from the use of expanded recreation facilities. Recreation use within the FERC Project boundary is expected to increase the number of individuals exposed to two potential health risks: (1) coliform bacteria in isolated

swimming areas where waterfowl and recreation use occurs; and (2) consumption of fish containing elevated levels of mercury.

As previously noted, mercury accumulation is an existing condition of the Oroville Facilities, as well as almost all of the reservoirs and rivers in the Sierra Nevada foothills where historic mining activity occurred. The Proposed Project would not result in a change to either the rate or the amount of mercury accumulation within the FERC Project boundary. While no practicable mitigation measures exist for mercury accumulation, both the Proposed Project and the FERC staff Alternative include measures to educate and notify the public of safe limits on the consumption of fish. Mercury accumulation is addressed in the DEIR, as it is a part of the environmental baseline and would continue to occur at the same rate under all Project alternatives.

With regard to the assertion that the DEIR must mitigate water quality problems related to bacteria, elevated bacterial concentrations at the public recreational swim areas within the Project area occur under Existing Conditions, and the Proposed Project would not increase bacteria levels. It should also be noted that bacteria in Project waters are a consequence of both public recreational use and waterfowl use, both of which are beneficial uses under the Basin Plan. Therefore, because the Proposed Project would not increase bacteria levels and result in an adverse impact, no mitigation is required. However, the Proposed Project may result in increased recreation at these Project facilities and a resulting increase in potential exposure to bacteria. SA Article A112 commits DWR to implement an expanded water quality monitoring and reporting program developed in coordination with SWRCB staff. SA Articles A113 and A114 were developed and incorporated into the SA to address the potential for an increase in the number of recreationists exposed to health risks associated with water contact recreation. The educational component of the Proposed Project actions would assist in informing the public about both the potential health hazards and the actions they may take to lessen the bacterial concentrations from human sources (e.g., diapers) at these shared swimming locations. Temporary closures of more natural public swimming areas are standard actions taken in response to elevated bacteria levels consistent with State programs and public health mandates.

Response C0002-138:

Contrary to the assertion that the modeling assumes the non-existence of climate change, the modeling takes into account a wide variety of climatic conditions, and thus serves as an appropriate tool to analyze conditions that may occur as a result of climate change. Historic Feather River flows, and thus inflows to Lake Oroville, have varied significantly from year to year, reflecting the highly variable climate in the region. Extensive operations modeling performed in support of both the PDEA and subsequent DEIR reflects the above variability, analyzing 73 different inflow years into Lake Oroville; this covers a truly wide range of hydrologic conditions, including those theorized by climate change scenarios. Thus, the analysis and conclusions presented in the DEIR regarding water temperature are valid.

With regard to meeting water quality objectives under potential changing climatic conditions, the Proposed Project and the FERC Staff Alternative incorporate an expanded water quality monitoring program and an adaptive management approach to appropriately address a wide variety of future conditions, including a changing climate. See, for example, SA Articles A108 and A112.

DWR acknowledges that FERC will require a water quality certification by the SWRCB, which in turn must determine that the Proposed Project will comply with appropriate requirements of the Basin Plan, including that the Proposed Project will meet the water quality objectives set forth in the Basin Plan. The SWRCB staff was an active participant in the ALP process, with direct input during the development of study plans, evaluation of study results, and development of the water quality monitoring plan designed to monitor water quality parameters of interest to the SWRCB. The DEIR (Section 4.2.2) presents a discussion of specific water quality parameters measured during Relicensing studies. As described in Section 5.2.2.1 of the DEIR, DWR evaluated the Proposed Project for compliance with all water quality objectives in the Basin Plan as well as other applicable federal, State, and local plans, policies, regulations, and laws. Compliance with water quality standards, including the Basin Plan–designated beneficial uses, was one of the impact thresholds utilized in the DEIR. A lengthy discussion of the Existing Conditions with regard to beneficial uses is included in Section 4.2.2.1 of the DEIR. Table 4.2-3 in the DEIR contains a description presenting water quality objectives, standards, and criteria, including MCLs. Section 5.2.2.5 of the DEIR evaluates compliance with all Basin Plan beneficial uses and water quality objectives. DWR is committed to remaining in compliance with the Basin Plan.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

Response C0002-139:

DWR accepts that, as stated by the commenter concerning the general plans for Butte County and the City of Oroville, BCAG is creating a habitat conservation plan/natural community conservation plan on behalf of the County and the cities of Biggs, Chico, Gridley, and Oroville. These plans are local land use and management plans unrelated to management of State lands within the FERC Project boundary. In addition, CEQA requires a consideration of existing, adopted land use plans. Because the content of plans that have not been adopted by appropriate governing bodies may change, they are not used for consistency analysis under CEQA. The adopted general plans for the County and the City of Oroville are listed in Table 5.6-1 of the DEIR (page 5.6-2) under the comprehensive land use and resource management plans in the Oroville area, and the adopted plans are appropriately considered in the DEIR.

Response C0002-140:

Please see the DEIR, Section 5.7, pages 5.7-1 through 5.7-7, for a comprehensive description of management responsibilities within the Project area. Butte County does

not incur any cost in managing the recreational areas within the Oroville Facilities. It does benefit from the recreational facilities. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for information specific to this comment, especially the benefits to the County of the recreational facilities.

The conclusion of the DEIR remains the same in the FEIR: no significant, unavoidable impacts on recreational resources would result from the Proposed Project.

Response C0002-141:

SP-R12, Projected Recreation Use, was based on the same operational models upon which the 2020 projection of water supply conditions and operations were forecast. In this foreseeable future, no significant impacts of climate change on recreation or water quality are discerned. With regard to effects on recreation as a result of potential changes to climatic conditions, the Proposed Project and the FERC Staff Alternative incorporate an expanded water quality monitoring program and an adaptive management approach to appropriately address a wide variety of future conditions, including a changing climate. See, for example, SA Articles A108 and A112 and the RMP.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

Response C0002-142:

The Proposed Project would not result in an in increase in beach closures, and would therefore not result in a significant impact on recreation that would, in turn, require mitigation measures. However, DWR recognizes the importance of recreational swimming in the Project area, and it has committed in the SA to undertake a feasibility study designed to identify the most appropriate location for construction of a warm water swim facility. Thus, DWR’s commitment to not only "maintaining" but actually expanding and enhancing swimming opportunities is evident as part of the Proposed Project, through completion of the proposed warm water swimming feasibility study and the associated commitment to provide one or more new warm water swimming opportunities.

With regard to the assertion that the DEIR must mitigate water quality problems related to bacteria, elevated bacterial concentrations at the public recreational swim areas within the Project area occur under Existing Conditions, and the Proposed Project would not increase bacteria levels. It should also be noted that bacteria in Project waters are a consequence of both public recreational use and waterfowl use, both of which are beneficial uses under the Basin Plan. Therefore, because the Proposed Project would not increase bacteria levels and result in an adverse impact, no mitigation is required. However, the Proposed Project may result in increased recreation at these Project facilities and, as a result, an increase in potential exposure to bacteria. SA Article A112

commits DWR to implement an expanded water quality monitoring and reporting program developed in coordination with SWRCB staff. SA Articles A113 and A114 were developed and incorporated into the SA to address the potential for an increase in the number of recreationists exposed to health risks associated with water contact recreation. The educational component of the Proposed Project actions would assist in informing the public about both the potential health hazards and the actions they may take to lessen the bacterial concentrations from human sources (e.g., diapers) at these shared swimming locations. Temporary closures of more natural public swimming areas are standard actions taken in response to elevated bacteria levels, consistent with State programs and public health mandates.

Response C0002-143:

The comment addresses the proposed temporary closure of Foreman Creek described in the FEIS issued by FERC. As noted in Section 5.7 of the DEIR (Table 5.7-1 and pages 5.7-22 and 5.7-23), the impact on recreational use and access to the reservoir that would result from the proposed temporary closure of Foreman Creek under the FERC Staff Alternative was considered a less-than-significant impact due to the temporary nature of the closure. In compliance with SA Article A129, DWR is committed to developing a plan to improve and redirect recreational uses at Foreman Creek while protecting important cultural resources values at this location. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Foreman Creek, for additional information relevant to this comment.

Response C0002-144:

Mercury accumulation is an existing condition of the Oroville Facilities, as well as almost all of the reservoirs and rivers in the Sierra Nevada foothills where historic mining activity occurred. The Proposed Project would not result in a change to either the rate or the amount of mercury accumulation within the FERC Project boundary. Although no practicable mitigation measures exist for mercury bioaccumulation, both the Proposed Project and the FERC Staff Alternative include measures to educate and notify the public about safe limits on the consumption of fish. Mercury accumulation is addressed in the DEIR, as it is a part of the environmental baseline and would continue to occur at the same rate under all Project alternatives.

Based on current OEHHA guidelines, the risk to anglers at the Oroville Facilities is minimal. No mitigation is necessary. Nevertheless, a paragraph has been added to the DEIR in Section 4.7.2.2 describing this environmental condition in the context of recreational angling. See Chapter 2.0 of this FEIR for revisions to DEIR text.

Response C0002-145:

As discussed on page 5.7-15, the DEIR acknowledges the potential hazards associated with the Structural Habitat Supplementation and Improvement Program and explains that safety issues would be addressed to minimize risks to human safety. The Instream Structural Placement Plan included in this action would include an analysis of safety

issues to avoid unreasonable risk to the safety of river users once placement locations have been identified and before any materials that could pose a risk would be placed in the river. Further, once such measures are identified, the actual placement of materials would include the implementation of those measures to avoid unreasonable risk to the safety of river users.

Response C0002-146:

The impacts of the Proposed Project on public services were thoroughly evaluated and discussed in the DEIR. Impacts on traffic and road maintenance are discussed on pages 5.14-8 through 5.14-15. Impacts on law enforcement and criminal justice services, fire protection, and emergency medical services are discussed on pages 5.9-12 through 5.9-16 of the DEIR. Based on significance criteria identified in Appendix G of the State CEQA Guidelines, as described in Response C0002-147, the impacts of the Proposed Project on these public services were found to be less than significant. As a result, mitigation is not required under CEQA. Although impacts of additional recreation visitors on trash collection services were not specifically discussed in the DEIR, state agencies including DWR, DPR, and DFG currently provide this service within the project area and would continue to provide the service under the Proposed Project.

The relevance of *City of Marina v. Bd. of Trustees of Cal. State University* to the impact analysis presented in the DEIR is discussed in response to Comment C0002-147.

Response C0002-147:

Mitigation of impacts on public services is required under CEQA only for those adverse impacts on the physical environment determined to be significant. The threshold in the DEIR for finding a significant effect related to public services is whether an alternative would:

- 5.9.2-a: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities needed to maintain acceptable service ratios, response times, or other performance objectives for any public service, including law enforcement, fire protection, schools, parks, emergency medical services, and other public facilities.

As discussed on pages 5.9-13 through 5.9-16 of the DEIR, the projected increase in the demand for public services would be only about 0.6 percent of total demand in 2020, as represented by the projected countywide population of 276,000 in 2020 (with about half of the increased demand attributable to regional and statewide population growth that would occur under the No-Project Alternative, unrelated to project improvements). Under the Proposed Project, the need to construct or alter government facilities to provide public services to maintain adequate service levels, potentially resulting in adverse impacts on the physical environment, is unlikely considering the small and gradual increase in the demand for public services that would be generated by implementing the Proposed Project; the distribution of law enforcement, fire, and emergency medical services calls among several agencies; and the addition of new full-

time positions. Thus, the impact of the Proposed Project on public services was considered less than significant, requiring no mitigation. Additionally, the small increase in the demand for public services generated by the Proposed Project would not be concentrated entirely within and near the LOSRA. Rather, the demand for public services would be dispersed throughout Butte County to some extent, as dictated by the travel patterns of Oroville Facilities visitors and employees, and by the residential locations of Oroville Facilities employees and the population indirectly supported by the Proposed Project. This dispersed demand for public services would lessen the demand placed on any one facility, such as a fire station, further reducing the need for new or expanded facilities within Butte County.

Butte County's reliance on *City of Marina* for the proposition that DWR must fund or provide services now provided by the County is misplaced. In *City of Marina,* California State University, Monterey Bay, agreed that expansion of the university would have significant economic and social impacts that would require extensive new infrastructure outside of the university area that would constitute a significant environmental impact; however, the university argued that it did not have the authority to fund or provide for the new services. The court found that the university was incorrect in its assumption that it did not have the authority and required it to revise its analysis and EIR in light of its authority to mitigate. The court recognized that the university, in its new analysis, might still decide not to mitigate (or mitigate fully) the environmental impacts caused by the increased need for services because it found mitigation infeasible for other reasons. The *City of Marina* case is very different from the Oroville Facilities Relicensing, where there is no evidence that any increase in services would lead to a need for new infrastructure.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-148:

The DEIR analysis of impacts on public services focuses on the effects that visitors to the Oroville Facilities who do not live in unincorporated Butte County have on public services provided by Butte County. It is presumed that residents of unincorporated Butte County who recreate at the Oroville Facilities would affect the demand for public services in the county regardless of whether they recreate at the Oroville Facilities or, alternatively, engage in some other activity in the county. The assumption is based on common sense: If county residents are not using Project recreation facilities, most are presumably doing something else, most likely within the county, thereby still affecting local service demands. Participating in alternative activities would also generate wear and tear of County-maintained roads, result in medical emergencies or fires that require responses by local service providers, or result in criminal activity (including traffic infractions and DUIs) that involve local law enforcement personnel and the criminal justice system. Making this assumption is clearly more reasonable than assuming that residents of unincorporated Butte County would generate no demand for public services provided by the County if they were not recreating at the Project facilities. Note that the

DEIR's analysis of public services impacts on Butte County includes not only effects from visitors coming from outside of Butte County but also effects attributable to visitors to the Oroville Facilities who are residents of incorporated communities in Butte County, such as Oroville and Chico.

The County, in its comments on the DEIR, disputes the reasonableness of this assumption. However, in the report *Operational Impacts of the Oroville Facilities Project on Butte County,* which was appended to the County's DEIR comments letter (see Appendix A of this FEIR), the County employed the same "visitors-only" assumption in assessing project impacts on the County's public services. The Butte County report states (on page 11) the following:

> Second, to account for those Project-related costs that cannot be readily or fully documented (e.g., police and fire departments do not break down all of their reports based on whether incidents occur inside or outside of the Project Area), the County determines the cost of providing services to that portion of the annual Visitor population at the Project that is associated with Non-Resident Visitors. Although all Project Visitors place demands on County services, it is assumed that the County *would provide services to its residents even if the Project did not exist*. [Emphasis added.]

This "visitors-only" assumption is carried through Butte County's entire analysis of public services costs, indicating that, at least at the time of the report (February 2006), the County also considered this to be a reasonable presumption.

Additionally, this presumption was implicitly adopted and incorporated into the FERC staff analysis of public services impacts of the Proposed Project when FERC evaluated the impact methodologies used by both the County and DWR and ultimately decided to use DWR's estimates of nonresident visitors as its basis for estimating public services impacts in the Relicensing FEIS (FERC FEIS, page 338).

Response C0002-149:

Although people's recreational choices may be affected to some extent by the availability of recreational facilities, this does not alter the reasoning behind the assumption that residents of unincorporated areas of Butte County would generate a demand for public services in the county regardless of whether they are recreating at the Oroville Facilities. Additionally, the County has no basis for asserting that residents of unincorporated areas of the county would not create the same or greater service burdens if they were not recreating at Project facilities. In fact, the County explicitly recognizes that it would have to provide services to its residents even if the Project did not exist. Please see Response to Comment C0002-148.

Response C0002-150:

Please see Responses to Comments C0002-148 and C0002-149.

Response C0002-151:

The commenter asserts that the methods employed to determine that the cumulative impacts on public services from the Proposed Project would be less than significant do not comply with CEQA requirements for cumulative impact analysis. In text supporting these comments, Butte County states that "CEQA requires lead agencies to consider, in evaluating the significance of project impacts, whether project-specific impacts, in combination with the impacts of other past, present, and future projects, collectively create significant adverse environmental impacts," and "that a lead agency cannot dismiss a project's contribution to a larger impact just because that contribution will be small in comparison to the larger impact as a whole, or to other contributing sources."

The County then goes on to assert that the DEIR utilizes that improper approach. It refers to text from pages 5.9-11 and 5.9-12 of the DEIR that suggests that the DEIR concluded that the cumulative impacts on public services from the Proposed Project would be less than significant "because annual changes in projected visitor and project-supported resident populations are expected to be small relative to existing visitor and resident populations."

In essence, the comments argue that the DEIR's analysis of cumulative impacts on public services is improper because it dismisses the contribution of the Project to past, present, and probable future Project impacts as "minor." From a CEQA perspective, the appropriate question is not whether the impact from the Proposed Project is "minor" but whether the impact can be considered "cumulatively considerable." Even where a project's contribution is cumulatively considerable, it can be rendered less than this if it contributes its fair share of a mitigation measure that is intended to alleviate the cumulative impact as a whole (State CEQA Guidelines, Section 15130[a][3]).

Two points need to be emphasized in responding to the County's assertion that the cumulative public services analysis is inadequate.

First, the use of the terms "small" and "minor" in the DEIR to describe the Proposed Project's incremental contribution to the cumulative demand for local public services is accompanied by substantial quantitative information that supports the less-than-significant conclusion (see pages 6.2-61 and 6.2-62 of the DEIR). As discussed on page 6.2-61 of the DEIR, "the project-supported population, including visitors to the Oroville Facilities, would potentially represent 2.2 percent of Butte County's 2020 population, potentially accounting for a similar percentage of the cumulative demand for public services in the county." It should be noted that this Project-supported population includes both the population supported by the existing Project and the increase attributable to the Proposed Project. This percentage is only slightly larger than the estimated percentage of the countywide population attributable to the Project in 2002-03 (2.0 percent) under the existing Project and in 2020 (1.8 percent) under No-Project conditions. The projected increase in Project-supported population (including growth that would occur under No-Project conditions) amounts to less than 0.6 percent of the projected county-wide population of 276,000 in 2020 (page 5.9-14 of the DEIR).

Second, the small increase in demand for public services generated by the Proposed Project would not be concentrated entirely within and near the LOSRA. Rather, the demand for public services would be dispersed throughout Butte County to some extent. This demand would be dictated by the travel patterns of Oroville Facilities visitors and employees, and by the residential locations of Oroville Facilities employees and the population indirectly supported by the Proposed Project. This dispersed demand for public services would lessen the demand placed on any one facility, such as a fire station, further reducing the need for new or expanded facilities within Butte County.

The DEIR goes on to state that the increased demand for services would be spread among a number of State and local agencies, and that funding provided by the Proposed Project, such as the OWA funding, is expected to minimize the increased demand on local service providers. The OWA funding alone would add 9.5 full-time positions, two of which would be full-time peace officers. These mitigating factors, which are discussed in more detail on pages 5.9-14 and 5.9-15 of the DEIR, support the DEIR's conclusion that the Proposed Project's incremental contribution to the cumulative demand for public services would be "small" or "minor." Please see Response to Comment C0002-81 for additional discussion on the role of State personnel in the allocation of the increased demand for services among different agencies.

The commenter states that "any project-related impact that increases Butte County's service obligations even slightly is a significant impact for those obligations already are overwhelming the county." The commenter cites *Communities for a Better Environment v. California Resources Agency* 103 Cal. App. 4th 98, 114 (2002) and *Kings County Farm Bureau v. City of Hanford* 221 Cal. App. 3rd (692 (1990) for the proposition that a lead agency cannot dismiss a project's contribution to a larger impact just because that contribution will be small in comparison to the larger impact as a whole, or to other contributing sources. In *Communities for a Better Environment*, the court stated "[A]nd the 'relevant' question under the *Kings County/Los Angeles* approach is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether 'any additional amount' of effect should be considered significant in the context of the existing cumulative effect. This does not mean, however, that *any* additional effect in a nonattainment area for that effect *necessarily* creates a significant cumulative impact; 'the one [additional] molecule rule' is not the law" (*Communities for a Better Environment v. California Resources Agency* 103 Cal. App. 4th 98, 120 [2002]).

Based on all the specific quantitative and qualitative information discussed above, the DEIR concluded that the impact was not cumulatively considerable and mitigation is not required. Although the Proposed Project may add to the overall cumulative impact on local public service providers, the DEIR is correct in concluding that the "additional amount" should not be considered significant in the context of the existing environment. The DEIR properly concludes that the increased demand for services would not create a potentially significant environmental impact. The discussion of the relationship of the increased demand for services in relation to the existing demand is one of several

factors considered in the DEIR that together support the conclusion of no potentially significant environmental impact.

It should be noted that Section 15125 of the State CEQA Guidelines describes the physical environmental conditions as they exist at the time the NOP is published as normally constituting the baseline physical conditions by which a lead agency determines whether an impact is significant. As described in Chapter 4.0, Environmental Setting, of the DEIR, baseline was established with the publication of the NOP in 2001. The existence of the Oroville Facilities and their current operations are part of the baseline environmental condition. The CEQA analysis must go beyond the numbers discussed in the Response to Comment C0002-167, which are social and economic factors, and must determine whether these fiscal impacts could lead to a physical change in the environment because of a need for new facilities or for some other reason. See *Goleta Union School District v. The Regents of the University of California* 37 Cal.App. 4th 1025 (1995), in which the court found that classroom overcrowding alone did not constitute a significant effect on the environment; some effect on the environment had to be found.

DWR does not have any information, nor has Butte County presented any, to indicate that the Proposed Project or the FERC Staff Alternative would result in an increased demand for services that would result in a significant effect on the environment.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-152:

The sentence from page 5.9-7 of the DEIR cited by the commenter is simply describing a stated CDF goal for fighting fires in Butte County. The relationship between CDF and BCFD in providing fire protection in Butte County is discussed in detail in Section 4.9.2 (pages 4.9-12 through 4.9-15) of the DEIR. No modification of the DEIR is required.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-153:

The statement on page 5.9-7 that is cited by the commenter is in a section that identifies local agencies that provide public services under the heading of “Local Plans, Policies, Regulations and Laws.” Both the City of Oroville and Butte County are named. Although the section could have identified the proportional responsibility of each entity, that information is not relevant to the environmental analysis. Other parts of the EIR discuss the relative role and responsibility of each agency that provides services. Please see Section 4.9 of the DEIR. See also Response to Comment C0002-74, which discusses in more detail the role of the City of Oroville in law enforcement.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-154:

The DEIR states that although visitation projections beyond 2020 are not available for the analysis of public services, the growth in recreation use is presumed to increase at rates similar to the rate between 2002 and 2020 throughout the 50-year term of the anticipated license. As described on page 5.9-12 of the DEIR, visitation by out-of-county residents and residents of cities within the county is projected to potentially increase from about 697,970 visitor days in 2002 to about 861,070 visitor days in 2020. Using simple straight-line extrapolation procedures, recreation visitation could be estimated for any year beyond 2020. Because the population of Butte County is expected to increase at a rate similar to projected recreation use, the relative contribution of the Proposed Project to demands on local public services beyond 2020 would likely remain similar to the impact in 2020. As described on page 5.9-14 of the DEIR, the increase in Project recreation visitors, operations and maintenance (O&M) commuters, and the population supported by the Project under the Proposed Project is expected to account for 0.6 percent of the total county population requiring public services in 2020. A similar percentage can be expected for the Project's contribution beyond 2020.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-155:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for information relevant to this comment.

Response C0002-156:

Although Butte County provides some public services solely to residents of the unincorporated areas of the county, the County must provide certain public services to all county residents, as well as to visitors to the county and to those passing through the county. For example, residents of the county's incorporated communities, such as Oroville and Chico, generate law enforcement calls, become involved in traffic accidents, travel on County-maintained roads, and generate emergency services calls in the unincorporated areas of Butte County. Therefore, using the countywide population as an indicator of the County's total service area population for public services such as law enforcement, criminal justice services, fire protection, emergency services, and road maintenance is much more relevant than using the population of just the unincorporated areas of Butte County when evaluating the relative impact of Oroville Facilities visitors on the demand for public services.

There is no "standard" approach to specifying the affected population for an analysis of impacts on public services; however, FERC, in its FEIS, independently evaluated the methodologies and results of the two studies of public services cost impacts of the Oroville Facilities (DWR SP-R19 and the County's Operational Impacts report) and concluded that the methodology used by DWR in SP-R19 (as modified in TCW Economics 2006), which generally uses the countywide population as an indicator of the County's total service area, was more reasonable than the methodology used by the County in its Operational Impacts report, which generally uses a sub-county area for its service area population. (See Table 69 on pages 335–337 of the FERC FEIS.)

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-157:

Using the average daily population of visitors is an accepted practice for assessing demands on local public services of tourist-attracting recreation facilities. The averaging of seasonal peaks and slower periods normalizes the ongoing demand, thereby making the assessment analogous to evaluating the local-service demands of a new community, in this case a community of an estimated 460 persons (i.e., the average daily number of out-of-county visitors to the Oroville Facilities). Using the average daily population to assess demands on local public services is particularly appropriate in this application because visitation to the Oroville Facilities represents a very small part of the overall demand for public services in Butte County, and the peak visitation reflects only short-term, discontinuous periods throughout the summer. The assessment implicitly assumes that Butte County would not hire permanent law enforcement, criminal justice, and fire protection/emergency services personnel only to meet the demands generated by peak visitation during summer weekends.

In its comments on the DEIR, however, Butte County disputes the use of year-round, average visitation numbers to evaluate Project-related public services demands, claiming instead that peak visitation derived only from weekend use over the 4-month summer recreation season (a total of 32 days between May 15 and September 15) should be used. According to the County, "visitors use the project year round, but at some times of year, visitation is much heavier than others, and the county therefore must be prepared to provide service levels sufficient to meet peak demand rather than just a more predictable average daily number." The County further states in a June 2006 filing with FERC, which was also appended to its DEIR comments (see Appendix A of this FEIR), that relying on overtime, hiring temporary personnel, and/or calling upon reserve officers and personnel are not feasible to meet the peak demands.

A review of "staffing-up" practices used by other jurisdictions to meet seasonal demands reveals a different story. According to the Shasta County Sheriff's Department (pers. comm., Strand 2008; pers. comm., Campbell 2008), which provides law enforcement and emergency response services to Shasta Lake visitors, the department hires seasonal employees to deal with the influx of visitors to Shasta Lake during the period

between Memorial Day and Labor Day. Most of the seasonal officers are retired officers from the Shasta County Sheriff's Department or Redding Police Department who want to earn extra money during the summer months. The Shasta County Sheriff's Department also hires seasonal employees from Shasta Community College's academy for reserve officers or administration of justice program. Furthermore, the Boating Safety Unit, which enforces boating laws on the lake, has three full-time, year-round officers, but during the May–September period, it hires 15 seasonal boating safety officers (fully deputized officers). Lastly, the Shasta County Sheriff's Department does not hire additional personnel to patrol roads in the unincorporated areas near the lake and to deal with additional calls or accidents during the peak season because the CHP generally covers the additional demand on local roads during the peak season.

Butte County additionally asserts in its DEIR comments that although the total demand for public services in the Project area is generally lower in non-summer periods, the County must respond to a far higher percentage of law enforcement and fire/rescue calls and referrals that arise during these non-peak periods because far fewer personnel from DPR or other agencies are available at that time to help provide law enforcement services in the Project area. However, according to Robert Foster, district superintendent for DPR's Northern Buttes District, this is not the case for DPR, which is the primary law enforcement agency in the LOSRA. Mr. Foster indicated that authorized law enforcement staffing levels provided by DPR to the LOSRA have remained the same for the last 10 years, and that all law enforcement positions are permanent, full-time positions (pers. comm., Foster 2007a).

In summary, determining an appropriate methodology for estimating the "population" of visitors potentially needing the services of local providers is important because the number of visitors "drives" the evaluation of demands on public services. Clearly, using average daily visitation provides a more reasonable approximation of service demands than using peak visitation, which generates a three-fold increase in the annual visitor population potentially needing services. FERC, in its independent assessment of the two methodologies for its EIS, reached the same conclusion, stating the following (page 338 of the FEIS):

> We conclude that the County's methods do indeed overstate the cost of providing services to nonresident visitors for the reasons listed above, and for that reason our staff estimate of visitor-related costs ($146,600) is taken from the applicant's estimate, which is appropriately based on average visitor numbers.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-158:

The DEIR does not argue that the incremental increase in service demand is insignificant because Butte County already has other significant service burdens. Although it recognized that the County may have major service burdens, it determined

that the additional fiscal impacts from the Proposed Project did not result in significant environmental impacts. Please see Response to Comment C0002-151.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-159:

The commenter misunderstands the use of "solely attributable." In the context of the text on page 5.9-14 of the DEIR, it includes all impacts (whether wholly or partially attributable to the Proposed Project) that are "solely attributable" to the Proposed Project as opposed to impacts from other sources. For comparison, see the reference to "total visitation to the Oroville Facilities generated solely by regional and statewide population" at the top of page 5.9-12. Please see Response to Comment C0002-151. Also see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-160:

Please see Responses to Comments C0002-72, C0002-73, C0002-78, and C0002-87, among responses to other Butte County comments on Section 4.9.2 of the DEIR.

Response C0002-161:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for information specific to this comment.

Response C0002-162:

Butte County was involved in the ALP from the very beginning and participated extensively in the settlement discussions. The County offered documentation regarding its view of an appropriate "fair share" of the Proposed Project's fiscal impact on the County. Both DWR and FERC reviewed the information and determined that it did not constitute an environmental impact that needed mitigation under the FERC licensing procedure, NEPA, or CEQA. As stated in the DEIR, DWR made an offer of funding, outside of the CEQA process, to the County for governmental services in the context of settlement discussions between DWR and the County. DWR did not consider this funding to be in the form of CEQA-required mitigation for a significant impact on the physical environment.

Response C0002-163:

As discussed on pages 5.9-7 and 5.9-8 of the DEIR, CEQA does not treat social and economic effects of projects as significant effects on the environment if they do not create, or are not caused by, physical effects. The demand for public services, and a local government's ability to pay for them, is not itself a physical effect on the

environment, but instead is a socioeconomic issue that could potentially lead to physical effects. For example, the need to build or change existing facilities to accommodate the demand for public services could result in physical effects on the environment. Appendix G of the State CEQA Guidelines therefore focuses on the public services topic with respect to whether an increased demand for public services could lead to a substantial adverse physical impact.

Thus, the significance of the impacts on public services resulting from the Proposed Project was evaluated based on the guidance provided by Appendix G of the State CEQA Guidelines, namely that there would be a significant impact if implementation of the Proposed Project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities needed to maintain acceptable service ratios, response times, or other performance objectives for any public service, including law enforcement, fire protection, schools, parks, emergency medical services, and other public facilities.

Please see Response to Comment C0002-147 for further discussion of impacts on public services and Response to Comment C0002-164 for a discussion of public services cost estimates related to the Project.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-164:

As discussed in *Economic and Fiscal Effects of the Oroville Hydroelectric Facilities Operations: A Local Perspective*, prepared by TCW Economics for DWR (TCW Economics 2006) (appended to DWR's FERC DEIS submittal, *Response of the California Department of Water Resources to Recommendations, Terms and Conditions, Prescriptions, and Settlement Comments*, May 26, 2006), two studies of the local fiscal effects of the Oroville Facilities have been prepared: DWR's SP-R19 report, *Fiscal Impacts* (May 2004), and the County's *Operational Impacts of the Oroville Facilities Project on Butte County* (February 2006). The methodologies and assumptions employed by these two studies were different in some important respects, resulting in widely divergent estimates of the costs to Butte County of providing public services to Oroville Facilities visitors. As discussed in the 2006 TCW Economics report, some of the assumptions underlying the analyses commissioned by the County were found to be unsupportable:

- The County used the peak Oroville Facilities visitation for the busiest weekends and holidays (10 percent of days) and applied this as a constant for the entire year to estimate the visitor-driven demand for public services. This alone overstated public services cost impacts by more than 250 percent relative to impacts estimated in DWR's Relicensing SP-R19.

- The impacts on public services in the County's Operational Impacts report were based on estimates of recreation days, not visitor days as derived in the SP-R19 report, *Fiscal Impacts*. This error resulted in additional inflation of public services cost effects.

- For impacts on roads and fire/rescue services, the County based its estimated impacts on a self-defined "Area of Highest Use" (AHU) that covers some 400,000 acres (i.e., 40 percent of Butte County and 10 times greater than the Oroville Facilities area). The County's use of the AHU population instead of the countywide population as the basis for determining the impact of visitors on public services was based on the assumption that only Project visitors and those living within the AHU use the roads and fire/rescue services in the AHU. This assumption resulted in a 450 percent overestimation of costs attributable to visitors because other visitors and County residents outside of the AHU also use the roads and generate fire/rescue calls when traveling in or through the AHU.

- The County estimated law enforcement costs attributable to Project visitors based on the need for a service level more than twice as high as its actual service level. By using the higher service level together with peak visitation numbers, the County's methodology produced a cost estimate for serving Project visitors that is much higher than the cost estimate produced by SP-R19.

In its FEIS, FERC independently evaluated the methodologies and results of the two fiscal studies. In virtually every case, FERC concluded that visitor-driven cost and revenue estimates produced by DWR in SP-R19 (as modified in TCW Economics 2006) were more reasonable than those produced by the County in its Operational Impacts report (see Table 69 on pages 335–337 of the FERC FEIS). As shown below in Table 5.2-2, the cost and revenue impacts estimated by DWR and those adopted by FERC in its FEIS are almost identical. Both sets of fiscal impact estimates are well below the estimates produced by Butte County.

Table 5.2-2. Comparison of visitor-driven cost and revenue impacts on the annual operations budget of Butte County (in $1,000).

Budget Category	Butte County Estimate	DWR Estimate	FERC Staff Estimate
Revenues			
Sales tax	$297.5	$217.1	$217.1
Lodging tax	$9.2	$3.3	$3.3
TOTAL	**$306.7**	**$220.4**	**$220.4**
Expenditures			
Fire protection	$393.3	$202.4	$202.4
Law enforcement/criminal justice	$1,357.1	$363.0	$363.0
Road maintenance	$791.4	$41.9	$18.6
TOTAL	$2,541.8	$607.3	$584.0
Net fiscal impact	***-$2,235.1***	***-$386.9***	***-$363.0***

Sources: DWR 2004a, as modified in TCW Economics 2006; FERC 2007

Regardless of the range of fiscal effects estimated for the Oroville Facilities, CEQA does not treat social and economic effects, including fiscal effects, of projects as significant effects on the environment if they do not create or are not caused by physical effects. This guidance was used as the basis for the DEIR's public services assessment, which focused on the potential physical impacts resulting from changes in the demand for public services rather than on the fiscal effects of the Project. It should be noted that based on DWR's estimate of a net deficit of $386,900 in visitor-driven revenues, the fiscal effect on Butte County of providing public services to visitors to the Oroville Facilities represents about 0.3 percent of Butte County's adopted fiscal year 2002-03 general fund budget of $114 million and about 0.1 percent of the County's overall budget of $275 million. This minor level of fiscal effect further supports the DEIR's conclusion (DEIR, page 5.9-15) that the need to construct or alter government facilities to provide public services to maintain adequate service levels, which could result in physical impacts on the environment, is considered unlikely under the Proposed Project.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics for additional information relevant to this comment.

Response C0002-165:

DWR does not believe that the County's EOC is in any increased risk of flooding than it was prior to construction of the Oroville Facilities. FERC made a similar finding in its FEIS: "We agree and conclude that there is no appreciable risk to the Emergency Operations Center from dam failure." The hypothetical possibility of a future dam failure is entirely speculative, and nothing in the record related to past dam safety evaluations that are in compliance with State and federal standards and regulations supports the County's rank speculation that complete failure of Oroville Dam is even remotely plausible.

Moreover, a U.S. Army Corps of Engineers (USACE) 2002 floodplain map and profile for the upper Feather River clearly shows that the County's EOC is not within either the 100-year or 500-year flood boundaries (DWR 2004b). The largest flood on record for the Feather River occurred in January 1997; this flood is estimated to have an approximately 100-year return frequency on a peak flow basis (DWR 1999). The EOC was not affected by this flood. In fact, based on a comparison between the topography at the EOC and the outer edge of the 500-year floodplain mapping performed by USACE in 2002, which is estimated to be a 520,000-cfs peak inflow to Lake Oroville, or 150 percent more than the January 1997 flood, the County EOC is some 50 vertical feet and 1 mile removed from the modeled floodplain.

DWR has no records to indicate that it recommended that Butte County personnel evacuate the EOC, and it is not aware of any other records to indicate that it recommended an evacuation. It is DWR's policy that decisions to evacuate during flood emergencies are left to the local authorities. Local authorities are provided all pertinent operational protocols and kept apprised of flood operations and real-time storm forecasts as these events unfold.

Response C0002-166:

As stated in Response to Comment C0002-165, DWR believes that the County's EOC is not in any increased risk of flooding than it was prior to construction of the Oroville Facilities, and therefore no mitigation measures are necessary.

Response C0002-167:

It is incorrect to describe the historical attendance data as a "modeled trend," and to imply that 2002-03 attendance data were not a foundation for modeling results. The recreation visitation models developed during the Relicensing studies analyzed a number of variables, including historical attendance data that serve as the basis (i.e., dependent variable) for time-series recreation models. Historical attendance data are not directly comparable to data collected in 2002-03 and later, owing to significant differences in collection methodology, and it is fallacious to characterize the difference between 2001 and 2002 as a "jump" in attendance.

The need for additional recreation facilities at the Oroville Facilities is described in detail in the SP-R17 report, *Recreation Needs Analysis*. Any discerned "negative trend" in recreation attendance was never a "justification" not to build facilities; future recreation attendance was actually predicted to increase in the year 2020 and beyond, and the RMP contains numerous and liberal "triggers" to build substantial additional facilities when and if the need arises. Anticipated future increases in attendance are actually built upon the 2002-03 Relicensing study attendance data. The commenter demonstrates a fundamental misunderstanding of the models, and the data and assumptions used to develop the models, by claiming that the models need "updating" to include the 2002-03 data.

Response C0002-168:

DWR did not ignore the recreation attendance data that it reports to FERC (Form 90 filings). The attendance-data collection methodology used for the FERC Form 90 filings was changed subsequent to work done for relicensing during 2002-03, as Relicensing studies uncovered shortcomings in the methodology previously used to estimate attendance. These methods are described in the SP-R9 report, *Existing Recreation Use*. Furthermore, "biennial reports" prepared prior to Work Group review of Relicensing study results, generally 2004-05, include detailed disclaimers about limitations of the use and interpretation of those data. Thereafter, biennial reports prepared in compliance with FERC Order 2100-054(J) adopted the new methodology validated by the contemporary Relicensing studies.

Response C0002-169:

Although the comment is correct in stating that the SP-R19 report, *Fiscal Impacts*, analyzed "visitor-driven" costs for Butte County generated by non-residents, these "non-residents" included not only out-of-county visitors but also visitors who are residents of incorporated communities in Butte County.

Response C0002-170:

The "indirect population" resulting from the Oroville Facilities' presence refers to the population supported by jobs generated by visitor and O&M-related spending plus the jobs secondarily generated by the indirect and induced spending generated by the initial round of spending. The "indirect population" associated with visitation and O&M spending under current (2002) and 2020 conditions was estimated by the Economic-Fiscal Model developed for SP-R19, Fiscal Impacts. The estimates were developed based on a current ratio of population to jobs and the total number of jobs estimated to be generated by visitor and O&M-related spending.

For current conditions, the Economic-Fiscal Model estimated that a population of 2,360 is supported in Butte County by the estimated jobs generated by the spending of out-of-county visitors to the Oroville Facilities and current O&M spending in each of the model's four geographical areas. Current commuting patterns were then applied to estimate the number of jobs in each model area that are filled by residents of that model area. (Some jobs would be filled by those commuting from outside of the model area.) The current ratio of population to jobs in each model area was then applied to the estimated jobs to arrive at a population impact in each model area. Table 5.2-3 below illustrates how the population estimate of 2,360 for current conditions was calculated.

Table 5.2-3. Estimated job and population impacts.

Model Area	Population-to-Jobs Ratio	Job Impact[1]	Population Impact
Oroville Area	2.50	623	1,558
Chico Area	1.99	217	432
Paradise Area	2.10	125	263
Biggs-Gridley Area	2.74	38	104
Total		1,003	2,357

[1] *As estimated by the Economic-Fiscal Model based on current visitor spending by out-of-county visitors and O&M spending. Note that these are not the total number of jobs generated by spending in each model area. Rather, they are the number of those jobs filled by residents in that model area, based on current commuting patterns.*

This same procedure was used to estimate the population in Butte County supported by visitor and O&M spending in 2020 under no-project and with-project conditions.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-171:

Although DWR's biennial reports to FERC use the terms "visitor-day" and "recreation day" interchangeably, these two measures of recreation activity have distinctly different meanings in the DEIR. The DEIR's assessment of impacts on public services is based on estimates of visitor days, not recreation days. A recreation day is defined as a person recreating at a particular site for any portion of a day, whereas a visitor day represents one person recreating at any number of sites on a particular day. One

person could account for 2 or 3 recreation days over an 8-hour period (by visiting 2 or 3 different recreation areas), but this would be only 1 visitor day. For the DEIR's analysis of the change in demand for public services generated by visitors to the Oroville Facilities, visitor day is a more relevant unit for measuring impacts.

In footnote 39 (page 67) of Butte County's comment letter, the County suggests that using recreation days for assessing impacts on County roads is more appropriate than using visitor days because a visitor traveling to multiple sites in a single day, which is counted as a single visitor day, would have a greater impact on roads than a visitor traveling to only one site, which is also counted as a single visitor day.

Please see Response to Comment C0002-164 on costs; see also in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-172:

Please see Response to Comment C0002-164 and see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-173:

Please see Response to Comment C0002-171.

Response C0002-174:

Please see Response to Comment C0002-164 and see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for additional information relevant to this comment.

Response C0002-175:

The comment asserts that the discussion of environmental justice in Section 5.10 is flawed because the DEIR incorrectly states that the Proposed Project is generally beneficial. According to the comment, the Project benefits will derive to the SWP contractors in the form of low-cost water, to the detriment of low-income populations in Butte County in the form of increased costs of government services, and therefore mitigation measures are required. DWR disagrees with the comment.

Information about economic and social effects of a project that are not relevant to the environmental analysis may be included in an EIR or may be presented in whatever form the lead agency chooses. In this case, DWR chose to include a separate discussion of environmental justice to comply with the California Resources Agency's policy that its member departments consider environmental justice in their decision-making. The DEIR text and the public participation opportunities preceding the DEIR have accomplished the purpose of the Resources Agency's policy.

The DEIR discusses the racial composition and economic status of individuals residing in Butte County and within the SWP service area, and of visitors to the Oroville Facilities, in Section 4.10. The text on page 4.10-7 of the DEIR acknowledges that income levels in Butte County and the city of Oroville fall below statewide averages and that "low-income families in the affected area are 'meaningfully greater' than in the general population (i.e., State of California)." Section 5.10 then discusses the general benefits that the Proposed Project would provide through enhanced recreation accessible to all regardless of race or income level. The text also describes the benefits to the local Native American community from the anticipated improvements to historic properties management under the Proposed Project.

Contrary to the comment's suggestion, the DEIR need not be revised to state an environmental justice impact or to provide mitigation measures. The comment does not identify how the economic and social issues it raises create, either directly or indirectly, a significant effect on the physical environment that is different from those already raised and discussed. Economic or social effects are not treated as significant effects on the environment under CEQA (State CEQA Guidelines Section 15131) unless they are caused by or contribute to creating an environmental impact. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Socioeconomics, for more information specific to this comment.

Response C0002-176:

Please see Response to Comment C0002-175.

Response C0002-177:

Please see Response to Comment C0002-123, which states that the presence of NOA and the potential health effects associated with exposure to asbestos are addressed in Section 4.12.3 (Existing Air Quality—Toxic Air Contaminants) of the DEIR. Section 5.12.1.2 (State Plans, Policies, Regulations, and Laws) of the DEIR describes the State regulations related to the demolition, renovation, and disposal of asbestos-containing materials, as well as regulations specific to the use of serpentine aggregate and ultramafic rock for surfacing and for construction, grading, quarrying, and surface mining operations in areas of serpentine or ultramafic rock.

As described under Impact 5.12-c in the DEIR (page 5.12-14), the Proposed Project would not involve construction, quarrying, or improvement activities in areas known to contain NOA, and road maintenance activities would be consistent with relevant regulations and rules related to NOA. Because the Proposed Project is not anticipated to result in a substantial increase in vehicle travel on the road segments crossing serpentine formations, long-term operations would not expose sensitive receptors to substantial concentrations of NOA or other toxic air contaminants, and the impact is therefore considered less than significant.

Response C0002-178:

As noted on page 5.12-21 of the DEIR, the calculations used to assess the significance of air quality emissions related to the operation of Proposed Project actions were intended to "indicate the order of magnitude of air quality impact." The estimation of 500 additional trips each day and an average distance traveled of 30 miles were considered reasonable estimates for this purpose. As noted in the DEIR (page 5.12-21), the modeled emissions for oxides of nitrogen, particulate matter, and reactive organic gases were found to be small (3–5 tons per year) relative to the threshold of 100 tons per year. Please note that the air quality analysis has been revised in response to comments from the Butte County Air Quality Management District (BCAQMD), as provided in Section 5.12 of Chapter 2.0 of this FEIR. The Project-related operations emissions are now assessed relative to daily thresholds, rather than an annual threshold. Modeled emissions of the air quality pollutants remain well below these thresholds.

Because these mobile-source emissions are linear relative to vehicle miles traveled, even if the number of trips or the average miles traveled increased substantially, the emissions of these air quality pollutants would not be in excess of the thresholds, and the impact would remain less than significant.

Response C0002-179:

Please see Response to Comment C0002-122.

Response C0002-180:

The list of roads provided on pages 4.14-14 and 4.14-15 of the DEIR has been revised to clarify certain roadway segments and to include additional road segments that provide access to recreational use areas. Please see Chapter 2.0 of this FEIR, Section 4.14.4.1, for revisions made in response to this comment. These revisions do not affect the content of Table 5.14-1 or the impact conclusions reached in the DEIR and do not require further response.

Response C0002-181:

The commenter's statement relating to use of roads "throughout the county" was made relative to the No-Project Alternative, and was in the context of anticipated population growth in the state and region that would lead to additional use of the Oroville Facilities. The first paragraph on page 5.14-9 of the DEIR has been modified in Chapter 2.0 of this FEIR. There is no change to the impact conclusion presented in the DEIR.

As described further in Section 5.14 of the DEIR, both areawide and localized impacts were addressed in the analysis of transportation and traffic impacts. The analysis beginning on page 5.14-9 of the DEIR is related to "Areawide Effects," which addresses impacts on a regional basis. "Localized impacts" more specific to project-related activities are described beginning on page 5.14-10 of the DEIR.

Response C0002-182:

The discussion of impacts on parking capacity under the No-Project Alternative (Impact 5.14-f) concludes that the "effects on parking capacity near the Oroville Facilities would be minor" as a result of gradual regional population growth, and that this impact would be less than significant.

Response C0002-183:

As described in Chapter 3.0 of the DEIR, the Proposed Project includes a variety of improvements to recreational facilities, including the expansion of parking areas at the Bidwell Marina and Boat Ramp, at Lime Saddle, at the Oroville Dam Overlook Day Use Area, and other locations in the Project area. These improvements are proposed to increase parking opportunities to enhance visitor use and experience. Additional detail on the nature of proposed parking improvements is provided in the RMP. The RMP also includes a monitoring program to assess whether additional parking facilities are needed to address future demand and, if identified thresholds are crossed, additional parking would be provided to meet those needs.

Response C0002-184:

The commenter requests an assessment of driving patterns "absent the project." As noted in Section 15125 of the State CEQA Guidelines, the physical environmental conditions as they exist at the time the NOP is published normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. As described in Chapter 4.0, Environmental Setting, of the DEIR, baseline was established with the publication of the NOP in 2001. The existence of the Oroville Facilities and their current operations are part of the baseline environmental condition.

Response C0002-185:

The comment indicates that the roads surrounding the recreation area may lack the structural capability to accommodate the additional loads associated with the Proposed Project. The comment does not dispute the calculation of the relative burden from the additional Project-related loads addressed in Impact 5.14-g in the DEIR, which identified the theoretical structural capacity of the areas roads and expressed it in terms of Equivalent Single Axel Loads.

As noted on page 5.14-15 of the DEIR, the analysis using the *Highway Design Manual* standards was used to establish a context to objectively assess the relative impact of truck (two-axle) and heavy truck (three-axle) traffic and recognizes that roads designed to different standards handle loads accordingly. The methodology for determining the incremental traffic load associated with trucks associated with the Proposed Project in the DEIR is the industry standard. The conclusion in the DEIR, that the increase in construction-related truck traffic under the Proposed Project would be insignificant relative to the capacity of a typical roadway section, is based on the small number of trucks, not the condition of the existing roads.

Response C0002-186:

As noted in Response to Comment C0002-185, the conclusion that an increase in construction-related truck traffic under the Proposed Project would be insignificant is based on the small number of trucks associated with the Proposed Project, not the condition of the existing roads. Please see also Response to Comment C0002-163 as it relates to financial issues.

Response C0002-187:

DWR requires contractors to repair any streets damaged by the local-access activities of construction trucks. DWR's General Conditions Document 00706, Control of Work, includes paragraph 13 entitled "Protection of Property and Facilities," which states, "Contractor shall protect property and facilities from damage and shall properly correct damage resulting from any cause."

In addition, DWR implements Standard Specification Section 01530, Protection of Existing Facilities. This document states that paved areas, including asphalt concrete damaged during construction, shall be replaced with similar materials and of equal thickness to match the existing adjacent undisturbed areas, except where specific resurfacing requirements have been specified or in the requirements of the agency issuing the permit.

Response C0002-188:

As noted on page 5.14-15 of the DEIR, the incremental impact of phased implementation of construction activities would be too small to have a substantial impact on the conditions of the regional roadway system. This conclusion takes into account the incremental impact and the standard maintenance practices.

Response C0002-189:

The analysis included in the County's comments is mistakenly based upon the assumption that the agricultural diversions would be 2°F colder 100 percent of the time. The County also mistakenly applies a water temperature exposure–to–yield loss relationship that is representative of yield losses that could occur at individual locations within a field. The water temperature exposure–to–yield loss relationship for locations within a field is not useful in determining overall yield losses that may occur with changes in irrigation source water temperatures, as is implied by the County's comments.

The DEIR analysis determined that the Existing Condition water temperatures were already in compliance with the new water temperature objectives over 75 percent of the time between May and July, which is the period during which rice production is sensitive to water temperature. Further, the analysis showed that during the remaining 25 percent of the time that water temperature management actions would be required for the Proposed Project, the source water temperature change would range from zero to a

maximum of a 2°F water temperature reduction. The reason that in some cases a water temperature control action would result in no source water temperature change is that one of the water temperature control actions called for in SA Article A108 is to increase the flows in the Low Flow Channel (LFC) up to 1,500 cfs. Increased LFC flows result in a water temperature reduction at the Robinson Riffle water temperature monitoring location without changing the source water temperatures. Additionally, the DEIR points out that the increased LFC base flows and the increased LFC flows for water temperature management would result in an increase to the residence time of water in Thermalito Afterbay, which would provide an opportunity for water temperatures to increase prior to diversion to the water districts.

The incremental change in water temperatures at the agricultural diversions would be small with the implementation of the Proposed Project. The best available science does not support analysis of the Proposed Project's potential change in water temperatures and their resulting distribution throughout districts, nor the estimation of the potential change in rice yields as they are distributed in the districts; however, it is feasible to analyze the change in the proportion of time that source water temperatures at the agricultural diversions are below 65°F as an indicator of the relative magnitude of change in conditions from the Existing Condition to the Proposed Project. A supplemental quantitative analysis is provided below to clarify and amplify the analysis in the DEIR on water temperature changes as a result of the Proposed Project as compared to Existing Conditions. The results of the analysis indicate that the duration of time that water temperatures are below 65°F during the sensitive rice growth stages (May 1–July 31) with the implementation of the initial license conditions of the Proposed Project would increase 0.53 percent, 0.14 percent, and 0.41 percent for analysis scenarios 1–3, respectively.

Because the temporal distribution of the reduced water temperatures for approximately 25 percent of the time during the rice-sensitive growth stage is unknown, three scenarios were used to evaluate potential change in the duration of exposure to water temperatures below 65°F at the Western Canal Water District (WCWD) diversion. The three scenarios were (1) all reductions in water temperatures occur at the beginning of the period, (2) all reductions in water temperatures occur at the end of the period, and (3) reductions in water temperatures are evenly distributed throughout the period (reduced water temperatures every fourth day). Additionally, because it is not possible to determine how much the water temperatures would be reduced in the zero-to-2°F water temperature reduction range, the analysis uses the most aggressive assumption and assumes that all water temperature reductions are the maximum amount that could potentially occur (i.e., analysis was conducted using a 2°F reduction for all scenarios). The analysis uses the water temperature data from 2002–2005 at the WCWD diversion at Thermalito Afterbay. The average number of hours below 65°F during the 2002–2005 period was 2,707 hours. The analysis of a reduction of water temperatures, as described in scenarios 1–3, results in an increase of the hours below 65°F of 2,721, 2,710, and 2,718, respectively. The increase of 14, 3, and 11 hours over the average number of hours of exposure (2,707 hours) results in an increase in the relative amount of exposure to water temperatures below 65°F of 0.53 percent, 0.14 percent, and 0.41 percent for analysis scenarios 1–3, respectively.

Although the use of the WCWD agricultural diversion location is utilized for this analysis due to the availability of data to support this analysis, it should be noted that water temperatures vary throughout the districts and throughout locations within a field. Therefore, there could be some locations within the districts and within fields that are more affected, and locations that would be less affected than these diversion location analysis results indicate. In consideration of the limitations of this supplemental discussion, it is clear that the proportion of change in source water temperatures associated with the Proposed Project results in a very small incremental change in the duration of cold water exposure and certainly provides a more appropriate basis to evaluate change than the misconstrued analysis of the County, which concluded an inaccurate but catastrophic increase of yield loss to 47 percent. Therefore, as previously presented in the DEIR, the change in source water temperature would not be expected to result in a significant change in rice yields or in a conversion of farmland to non-farming uses.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Rice Yields, for additional information relevant to this comment.

Response C0002-190:

CEQA analysis requires comparison of the Proposed Project against the Existing Conditions and the No-Project Alternative to determine significance. Cumulative analysis does take into account the historical changes in conditions and addressed the past, current, and future conditions with the Proposed Project in the following statement in Section 6.2, page 64: “Under the No-Project Alternative, rice yield losses due to water temperature would be expected to continue at generally the same rate as currently occur under the Existing Conditions.” This statement included in the DEIR is similar to that suggested by the comment.

Response C0002-191:

The commenter’s broad assertion regarding the adequacy of the cumulative impacts analysis does not allow for a specific response. However, it can be generally stated that the methodology used for the analysis of the cumulative impacts of the Proposed Project and FERC Staff Alternative followed the guidance set forth in CEQA and applicable case law, and the specific findings regarding cumulative impacts were justified.

Response C0002-192:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0002-193:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0002-194:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0002-195:

As discussed in Section 6.2.1 of the DEIR, the cumulative impact analysis addressed those resources that have the potential to be cumulatively affected by continued operation of the Oroville Facilities and other past existing and reasonably foreseeable related actions. The presence of the water quality constituents listed in this comment is part of the baseline condition as described in Section 4.2.2.2 of the DEIR, and neither the Proposed Project nor the FERC Staff Alternative would result in a change to the baseline condition.

Response C0002-196:

DWR recognizes that a major section of the Feather River was flooded, but the recreational opportunities that the commenter lists (fishing, boating, swimming, hiking) were not lost, since the Oroville Facilities continue to provide the same types of opportunities. Further, Section 6.2.8.1 of the DEIR found that the past and present actions have resulted in a substantial increase in the amount and range of recreational opportunities in the region. The Proposed Project would expand those opportunities with the implementation of the RMP. Therefore, the Proposed Project would not result in an adverse impact on recreation that would be cumulatively considerable.

Response C0002-197:

This comment does not provide enough specificity with regard to the cumulative impacts analysis to enable a detailed response. However, to the extent that these issues were raised with specificity by the commenter elsewhere, they have been addressed in the appropriate responses to comments.

Response C0002-198:

Contrary to the assertion made in this comment, the cumulative impacts analysis in the DEIR looked at all of the impacts, both negative and positive, of past, present, and probable future projects on the Proposed Project and FERC Staff Alternative as required by State CEQA Guidelines Section 15064(h)(1), and did not find that either alternative would result in a cumulatively considerable impact. As noted in Response to Comment C0002-196, the alternatives analyzed would result in an increase in recreational opportunities. With regard to the issue of bacterial contamination and recreation, please see Response to Comment C0002-137. With regard to the installation of structures in the Feather River, please see Response to Comment C0002-145. Finally, the Proposed Project and FERC Staff Alternative contain measures, such as the RMP, that will improve the recreational experience at the Project.

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COMMENTS FROM THE COUNTY OF PLUMAS AND THE PLUMAS COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

PLUMAS COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

August 17, 2007

Mr. Henry M. Ramirez
Manager, Oroville Facilities Relicensing Program
California Department of Water Resources
1416 Ninth St., Room 1155
Sacramento, CA 95814

Re: Comments on Draft EIR for Oroville Facilities Relicensing

Dear Mr. Ramirez:

The County of Plumas and the Plumas County Flood Control and Water Conservation District (collectively, "Plumas") appreciate the opportunity to comment on the Draft Environmental Impact Report ("DEIR") for the FERC relicensing of the Oroville Facilities ("Project 2100" or the "Project"). An enormous amount of work and time has been devoted to enhancing Project resources and benefits. DWR is commended for its efforts so far in addressing most of the important relicensing issues.

Plumas is a party to the relicensing proceedings and has been an active participant in the FERC-DWR ALP process. Plumas provided extensive comments on FERC's draft EIS, and those comments are hereby incorporated in our comments on the EIR and attached hereto as Attachment A.

2007 AUG 27 PM 1:36

We focus our new comments on three issues that are unresolved in the DEIR: water quality (temperature and mercury), cold water fish habitat, and climate change. Plumas seeks assurances from DWR and license conditions from FERC that will address these unresolved issues.

The first assurance is that DWR commits to being fully responsible and liable for the outcome of discretionary actions pertaining to water quality and cold water fisheries both in the reservoir and downstream of Oroville Dam. DWR should agree that lack of coldwater reserves in Oroville will not jeopardize cold water rights and reserves in upstream reservoirs in Plumas County. C0003-1

The second assurance is full disclosure and analysis in the EIR of how proposed Project operations will affect the cold water reserves in Oroville in a multi-year drought. Plumas makes this request with the understanding that until the Project complies with new federal and state biological opinions and until the State Water Resources Control Board issues a 401 Certification for the Project, there appear to be no guarantees in the EIR that there will be sufficient cold water reserves in Lake Oroville for environmental requirements in a multi-year drought. C0003-2

The third assurance is that DWR will work cooperatively with Plumas through the existing Plumas Watershed Forum and through the Upper Feather Integrated Regional Water Management Plan to address watershed issues such as source control for mercury and flood management. C0003-3

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In the final license, FERC needs to make the independent finding that upstream water rights and downstream environments are protected by the biological opinions and 401 Certification. If FERC finds that those requirements are not sufficiently protective, FERC should add additional license conditions that limit DWR's discretion for meeting or not meeting downstream cold water fishery and water quality requirements during dry periods. Conversely, FERC should recognize that a decision not to limit DWR's discretion does not obligate upstream reservoirs to mitigate DWR's water management problems. To provide the basis for these decisions, the EIR should specify management scenarios for the conservation of cold water in the reservoir under prolonged dry conditions. Coldwater reserves in the reservoir are the origin of the downstream cold water releases in the Settlement Agreement. The cold water pool in Oroville sustains water quality in the lake and downstream. C0003-4

Oroville Operations and Delta Exports

DWR manages operation of the Oroville Facilities and the firm annual water yield of 3.5 million acre feet ("MAF)". DWR has nearly complete control over the cold water reserves in Lake Oroville, subject to senior water rights, the federally mandated flood reservation, and extreme natural events. As the lead CEQA agency for assessing environmental impacts of proposed Project operations, and as the operator of the State Water Project ("SWP"), DWR has both the responsibility under CEQA and the capacity as the SWP operator to analyze recent and significant environmental changes with a clear nexus to Project operations. Changed environmental conditions have reached a new threshold of significance since the Settlement Agreement for the relicensing was signed and even since the final EIS was approved. It is not too late to display to the public how the Project will actually be managed under changing "current conditions," nor has it ever been more important to do so. C0003-5

The DEIR (page 3.2-9) accounts for water releases based on the "primary" purpose of the release, including water deliveries for the Feather River Service Area and exports, flood control reservation, and instream and Delta environmental requirements. However, all flood and environmental releases are potentially available for export once in-Delta requirements are met. It appears that some Delta water quality and fishery problems have a clear nexus to current and proposed Project operations. For example, the 2002 NOAA Biological Opinion for Project 2100 discusses the relationship between the 65°F maximum daily temperature requirement at Feather River mile 61.6 (Robinson Riffle in the low-flow channel) and effects on anadromous fish from Oroville to the Delta. A nexus exists between the Project and the Delta because a Project purpose is to provide environmental water from Oroville to the Delta and Project releases directly affect Delta water quality.

However, the DEIR does not analyze how changing conditions in the Delta may actually drive either the timing or the volume of future water releases from the Project. Since reservoir operation conditions are proposed to remain unchanged from existing conditions, DWR and FERC have concluded that there is no additional analysis to undertake. Plumas requests that the EIR revisit the evidence for that conclusion in the face of ever more uncertain SWP and fishery and water quality management operations in the Delta. C0003-6

On page 5.2-3, the DEIR states that "[s]ince there would be no changes in **net** releases from the facilities or changes to future allocation patterns, the modeling results utilized in the PDEA are equally applicable to the No-Project, Proposed Project, and FERC Staff Alternatives; therefore, no additional comparison is necessary." (emphasis added) Plumas disagrees because timing of Oroville releases and the timing of SWP export pumping in the Delta are becoming extremely controversial issues. The 2000-2006 "current conditions" period has been an optimal time for Lake Oroville and for SWP exports. However, the Delta fishery has crashed during that same period, and recent operations for Lake Oroville and Delta exports may not be sustainable. In the future, something will have to give -- in the Delta, in the exports, or at Lake Oroville. C0003-7

To better understand potential tradeoffs, Plumas requests that DWR provide a more detailed analysis of "current operating conditions" from 1995 to 2000 and from 2000 to 2006 as separate management periods with respect to water releases, water storage, and water quality. Plumas believes that CEQA requires DWR to undertake a more thorough analysis of the current operating conditions for the Project in light of new conditions in the Delta that have seemingly already caused changes in how Oroville has been operated since 2000. These are new operational changes that are different than 1995-2000 "current conditions." C0003-8

The ten years of "current conditions" is actually two five-year periods of distinctly different "current conditions." Both five-year periods can be considered experimental because neither of the two periods necessarily reflects what may actually happen in the future. Post-2000 pumping levels in the Delta could continue as "current conditions," but may be delivered largely from storage at Oroville rather than from river runoff during the winter. Or, post-2000 pumping could be significantly reduced seasonally or as net annual releases as the Biological Opinions for the Delta and Project 2100 are updated. C0003-9

Litigation related to the post-2000 Delta pumping regime includes a court-ordered revocation of the biological opinion for the Delta smelt and other fish species in the Delta. On May 25, 2007, Judge Wanger of the U.S. District Court in Fresno wrote

> The Delta smelt is undisputedly in jeopardy as to its survival and recovery. The 2005 BiOp's no jeopardy finding is arbitrary, capricious, and contrary to law.... The agency's failure to reasonably estimate the Delta smelt population and to analyze most recent smelt abundance data make the take limits based on historical data unreliable and unreasonable.

C0003-10

On April 18, 2007, Alameda County Superior Court Judge Frank Roesch issued an order requiring DWR to obtain an incidental take permit for killing endangered Delta smelt and other endangered fish species at the SWP export pumps. DWR has yet to comply with the order. In 2005, delta smelt numbers were the lowest ever measured, at just 2.4 percent of the number counted when the species was listed under the state and federal endangered species acts in 1993. Fish surveyors are having trouble finding any smelt at all this year, increasing concern that the fish are on the brink of extinction.

Although changes in export pumping and operation of the Oroville Facilities are not the only factors affecting Delta fisheries, numerous scientific studies identify increased export pumping

from the Delta and altered inflows from upstream Project facilities as significant factors in the decline of fish species. With the legal decisions that have recently been rendered, and with additional legal actions pending, the parameters for SWP operations have changed and will likely change further compared to the conditions under which the Oroville Settlement Agreement was signed and under which the environmental review has been undertaken up to this point. C0003-10 con't

In the final EIR, DWR should present the following information, monthly, for the years of 1995 to the present:

- Display the relationship between the actual (not modeled) volumes of water exported from the Delta by the SWP pumps, the actual (not modeled) releases from Oroville downstream into the Feather River, and the actual inflows into Oroville.
- Display the relationship between the actual (not modeled) volumes of water exported from the Delta by the SWP pumps and actual lake levels (using both elevations and acre-feet of reservoir storage) since 1995.
- Display Feather River mean daily water temperatures at Robinson Riffle for April to December from 1995 to present.

C0003-11

Appendix E presents modeled simulations of temperature targets. These simulations show that the Settlement Agreement temperature targets are feasible. However, DWR is not committing to implement the measures that would achieve them. That is why they are targets instead of mandatory conditions. The data requested would show outcomes using reservoir management and actual conditions.

Water Quality Requirements and Cold Water Reserves

The proposed water quality measures in the DEIR may be inadequate to ensure the long-term health of the cold water fisheries in Lake Oroville and downstream of the Oroville Dam. It is unclear, given that the biological opinion underlying the Settlement Agreement has been invalidated, whether the new downstream releases proposed by both FERC and DWR (1500 cfs for the high flow channel and 700 cfs for the low flow channel) are adequate in a multi-year drought. C0003-12

In Table 1 of Article 108 of the Settlement Agreement, DWR indicates that the proposed release flows will meet the water temperatures requirements for Robinson Riffle during most years. However, it is still unclear from the analysis presented in the DEIR how the proposed instream flows will perform in a series of dry and critically dry years. The ten-year record for current project operations is too short to include a prolonged dry period. Nonetheless, the EIR needs to predict how water quality would be affected within the reservoir and downstream of Lake Oroville with post-1995 reservoir operations during a prolonged drought in order to present an accurate picture of water quality impacts. C0003-13

The impacts of the water quality enhancement program are unclear because the DEIR does not provide an adequate basis for reviewing the relationship between current (post-1995) operations during critical months and critical hydrology. DWR should model actual daily mean water C0003-14

temperatures from April to November from 1995 to 2006 in the Feather River below the Oroville Dam under a reasonably foreseeable extended dry period. The model could use actual 1987-1992 hydrology in combination with the two operational periods of actual 1995-2000 and 2000-2005 water releases from Oroville to predict daily mean water temperatures. Reservoir carryover storage could also be modeled to display 1987-1992 hydrology in combination with the two distinct current reservoir operational periods (1995-2000 and 2000-2005). These model runs will provide two independent dry period modeled predictions of coldwater reserves within the lake based on actual operations. Finally, these "current conditions" model runs could be modeled again but with the addition of the proposed new downstream flows in both the FERC and the DWR alternatives to demonstrate the benefits of the new license.

Climate Change Analysis

DWR is seeking a fifty-year license for the Project. During the next half century, the impacts of climate change on the Northern Sierra region are not only foreseeable but unavoidable, as explained in DWR's own documents regarding climate change. ("An expected 25% reduction of snowpack by 2050 will change water supply." DWR Climate Change in California fact sheet, June 2007.) The operations of the Oroville Facilities will have to respond to climate change. The question is "when" and "how" and not "if," as the DEIR suggests. C0003-15

As noted in DWR's 2006 Progress on Incorporating Climate Change into Management of California's Water Resources, climate change would result in earlier pulse inflows to reservoirs providing flood control and water supply services, including Oroville, and reductions in cold water pool availability. Adverse environmental impacts may result from the Project's failure to adequately respond to climate-induced changes in the surrounding environment. Adaptations in Oroville operations in response to changing environmental conditions would, therefore, be considered a foreseeable and significant impact under CEQA. The analysis of future Project operations in the EIR should include one or more climate change operational scenarios that mitigate for potential adverse environmental effects from a changed climate. C0003-16

Baseline conditions describe the physical environmental conditions of the Project's region without the influence of the proposed Project. These are the conditions to which future environmental impacts from the Project can be compared. This consideration is particularly necessary for the new Project whose baseline will be a changing climate. The DEIR analysis fails to consider how the climatic and hydrological trends of climate change will affect the Project over fifty years. Over the next fifty years, trends indicate the baseline will change significantly from historic baseline conditions. C0003-17

The EIR must consider the impacts of these new trends on Feather River water temperature objectives, Lake Oroville water levels, Oroville flood management, and future water supply operations under a new 50-year license. Specifically, all project operations and alternatives should be analyzed under a range of forecasted atmospheric temperature scenarios and based on historic trends in runoff and river temperature projected fifty years into the future. This range should include the hydrological impacts on the Feather River system and Oroville operations under a 0.1° - 0.2°C per decade rise over the next fifty years, based on projections from the Intergovernmental Panel on Climate Change. C0003-18

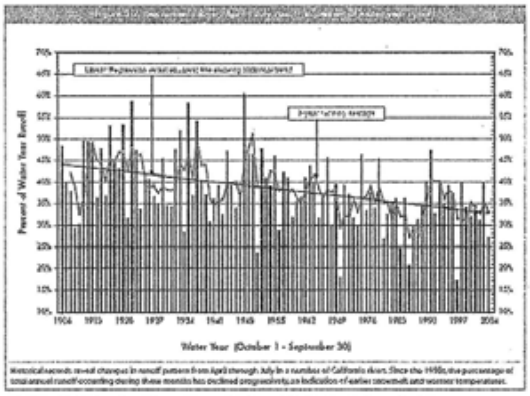
As shown in the table below, climate change scenarios indicate that Feather River temperatures will rise on an annual average basis. The EIR should project these trends throughout the 50-year license period to analyze how the proposed operational changes will fulfill water temperature objectives required to support river fisheries. Analysis should include how factors of diminished Sierra snowpack, hotter reservoir inflows and outflows, and possible loss of reservoir storage due to seasonal shifts in reservoir inflow will impact cold water pool reliability and future temperature objective requirements. C0003-19

Table 4.24 Average Water Temperatures along the Sacramento River

	Study 1: Base		Study 2: GFDL A2		Study 3: PCM A2		Study 4: GFDL B1		Study 5: PCM B1	
	Average	1928-1934	Average	1928-1934	Average	1928-1934	Average	1928-1934	Average	1928-1934
American River	59.8	60.5	62.9	63.7	61.4	62.2	62.6	63.4	60.7	61.5
Balls Ferry	52.3	53.9	54.6	56.5	53.8	55.7	54.4	56.1	52.9	54.2
Bend Bridge	53.3	54.7	55.4	57.1	54.6	56.4	55.2	56.7	53.8	55.0
Butte City	57.1	58.3	59.5	61.0	58.5	59.9	59.2	60.6	57.8	58.9
Colusa Basin Drain	59.4	60.4	62.2	63.3	61.0	62.0	61.9	63.0	60.3	61.3
Feather River	59.8	60.6	62.7	63.7	61.3	62.2	62.4	63.3	60.6	61.5
Freeport	59.9	60.7	63.0	63.8	61.5	62.3	62.7	63.6	60.9	61.6
Jellys Ferry	53.1	54.5	55.2	56.9	54.4	56.2	55.0	56.5	53.6	54.7
Keswick	50.6	52.2	53.0	54.9	52.1	54.0	52.9	54.5	51.2	52.5
Keswick Above Spring Creek	50.8	52.3	53.2	55.1	52.3	54.3	53.1	54.8	51.4	52.6
Red Bluff	53.8	55.3	56.0	57.7	55.2	56.9	55.8	57.3	54.4	55.6
Shasta	49.8	51.4	52.1	54.0	51.3	53.2	52.0	53.7	50.5	51.6
Vina	54.8	56.1	57.0	58.8	56.2	57.7	56.8	58.2	55.4	56.5
Wilkins Slough	58.4	59.6	61.1	62.4	60.0	61.2	60.8	62.0	59.2	60.3

California Department of Water Resources. Progress on Incorporating Climate Change into Management of California's Water Resources: Technical Memorandum Report. July 2006. pg. 4-48.

In anticipation of continuing trends in earlier seasonal snowpack runoff, the EIR should model the Project's reservoir operations and all alternatives under the range of temperature increase scenarios. Such analysis should quantify climate change effects on the ability of the Lake Oroville to provide adequate flood control and water supply while appropriately maintaining conservation storage above the dam. DWR should also analyze whether the level of flood management available under a range of scenarios will support the standards for adequate flood protection downstream. Adaptive strategies necessary to decrease future flood risk evident in climate change model forecasts must be developed by projecting historical trends over a fifty-year span. C0003-20 C0003-21



DWR California Water Plan Update 2005, Vol. 1, p. 3-16.

Upper Watershed Management Actions

Plumas continues to encourage DWR to pursue actions in the Upper Feather River watershed above Lake Oroville that will benefit project operations, including expansion of the projects implemented by Plumas, DWR, and the State Water Project contractors through the Plumas Watershed Forum. The relicensing of Project 2100, as well as the relicensing of multiple Pacific Gas & Electric Company facilities above Lake Oroville, provide an opportunity for improved coordination and planning of the operations of all the projects, as well as comprehensive consideration of the multiple benefits that accrue from meadow restoration and other watershed management actions.

Watershed management is a forward looking strategy. A watershed approach for enhancing flexibility for downstream water supply, flood control, and hydroelectric generation is increasingly in the broad public interest as climate change creates more extreme weather events. Existing infrastructure is designed for a range of climatic conditions that may be less frequent in the future, making the Feather River's water supply and hydroelectric facilities less efficient. A "broad benefits" climate change strategy in California includes a renewed commitment to enhancing watershed health in the forested regions of the state where most of the state's developed water originates.

In licensing proceedings for PG&E projects 2105 and 2107 on the North Fork Feather River, Plumas has offered a Watershed Restoration and Improvement Alternative as a means to enhance cold water baseflows in the Feather River system and as a means of reducing flood peaks entering Oroville, among other water quality, water supply, environmental, and recreational enhancements that would be achieved through the proposal. Plumas previously recommended that the Watershed Restoration and Improvement Alternative be supported through the PM&Es for Project 2100 – either independently by DWR or as part of a joint mitigation program with PG&E (as has been undertaken by both entities to apportion responsibility for restoring anadromous fish). The most recent description of the proposal, as filed in the 2107 proceedings, is attached hereto as Attachment B and incorporated herein by this reference.

Mercury

The EIR should better address options for source control for incoming mercury, particularly with a mercury TMDL scheduled for implementation during the new license period. In the interim, an effective fish advisory program needs to be developed that recognizes that subsistence fish consumption often exceeds health advisory criteria. Income and cultural preferences by populations living in the Project area suggest that subsistence fishing consumption levels maybe a concern. Fish Advisory notices should be posted at boat launch sites and be presented in other languages besides English (such as Spanish and Mong). C0003-22

Winter floodwaters drop sediment where the incoming rivers meet the lake. In summer, in the warm and nutrient-rich tributary arms of the reservoir, inert mercury transforms into methyl-mercury which enters the food chain in the reservoir. Sediment control upstream that attenuates flood peaks, through restoring transitory storage of floodwaters on large upland meadows, also captures mercury. Restored floodplains capture and store the mercury that is moving from mining sources downstream with water-borne sediment while it is still inert, providing yet another benefit in implementing Plumas's Watershed Restoration and Improvement Alternative.

7

Other Matters

Plumas supports the Settlement Agreement benefits fund and recreation improvements and water quality monitoring provisions. Plumas is especially supportive of DWR expanding flood forecasting data and modeling capabilities in the Upper Feather River Basin. Finally, in general, Plumas supports the FERC Alternative over the DWR Alternative, except with regard to water quality and cold water fisheries and flood management, where the alternatives are identical and deficient as discussed above. C0003-23

Thank you for the opportunity to submit these comments.

Sincerely,

Brian L. Morris
General Manager
Plumas County Flood Control and Water Conservation District

Attachment A – Plumas Comments on Draft EIS
Attachment B – Watershed Restoration and Improvement Alternative

8

RESPONSES TO COMMENTS FROM PLUMAS COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

Response C0003-1:

Because net water release volumes from Lake Oroville would not be altered under any of the Project alternatives, the cold water volumes in Lake Oroville would be similar under each operational scenario discussed in the DEIR. Although cold water availability in Lake Oroville could change in the future, that availability would not be the result of actions associated with the Project alternatives. The DEIR provides a description of existing water quality in Section 4.2.2 and provides an analysis of potential effects on water quality constituents for all Project alternatives in Section 5.2.2.

The Proposed Project and Project alternatives would not affect cold water pool resources in upstream reservoirs. DWR examined cold water pool availability and cold water fisheries habitat in Lake Oroville in SP-E7A and SP-F3.1, Task 2B, studies developed during the FERC Relicensing process. SP-E7A looked at overall cold water pool volume available for release through the powerhouse and through the river outlets, while SP-F3.1, Task 2B, examined cold water pool volume in relationship to suitable habitat for cold water fish in Lake Oroville. Both reports concluded that there was ample cold water pool volume in Oroville Reservoir to meet water temperature objectives downstream.

The DEIR specifies management scenarios for the conservation of cold water in the reservoir under all reasonable potential future hydrological years, including scenarios that anticipate “prolonged dry conditions.” This is reflected in the extensive reservoir operations modeling, which covered 73 years of historical hydrology, including extended periods of extremely low reservoir inflow. The scenario described by the commenter would likely be considered a “Conference Year”; management actions taken during a Conference Year are discussed in the DEIR, Section 3.3.2.3, Environmental Facilities and Operations, under the heading “Instream Flow and Temperature Improvement for Anadromous Fish (SA Article A108).” A more detailed discussion of how Conference Year flows would be addressed under the Proposed Project is included in SA Article A108.6 in Appendix B of the DEIR. Additionally, management actions employed in the event that the licensee is unable to meet temperature requirements due to uncontrollable forces are described in SA Article 108.7, also included in Appendix B of the DEIR.

The Palermo Canal Improvements, Hyatt Intake extension, and river valve improvement measures, described in the DEIR, Section 3.3.2.1, are all designed to increase access to cold water pool reserves in Lake Oroville and to increase the efficiency of utilization of Lake Oroville cold water pool resources.

Response C0003-2:

Please see Response to Comment C0003-1.

Response C0003-3:

None of the Project alternatives discussed in this DEIR would alter any existing DWR commitments to work cooperatively with Plumas County through the existing Plumas Watershed Forum and through the *Upper Feather Integrated Regional Water Management Plan*.

Response C0003-4:

Please see Response to Comments C0003-1.

Response C0003-5:

It is not appropriate to use a moving baseline in the environmental analysis as suggested by the commenter. Section 15125 of the State CEQA Guidelines describes the physical environmental conditions as they exist at the time the NOP is published as normally constituting the baseline physical conditions by which a lead agency determines whether an impact is significant. As described in Chapter 4.0, Environmental Setting, of the DEIR, baseline was established with the publication of the NOP in 2001. The existence of the Oroville Facilities is part of the baseline environmental condition. CEQA requires that an EIR discuss the significant environmental effects of the Proposed Project when compared to the Existing Conditions (i.e., the baseline). Thus, comments related to impacts that occurred prior to baseline conditions (occurring before publication of the NOP) do not require a response in the FEIR. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, and The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

Response C0003-6:

The comment correctly states that future conditions in the Delta may precipitate changes in the timing and/or the volume of water releases from the Oroville Facilities. The commenter incorrectly states that “reservoir operation conditions are proposed to remain unchanged from existing conditions.” All of the Project alternatives (No-Project Alternative, Proposed Project, and FERC Staff Alternative) assume changes in allocation patterns in the future as compared to the Existing Condition. This DEIR evaluates the potential environmental impacts that may be associated with the SA. Because none of the Project alternatives analyzed in the DEIR differ in the amount of water released from the Oroville Facilities, further analysis of Delta conditions would be beyond the scope of this DEIR. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information specific to this comment.

Response C0003-7:

Please see Responses to Comments C0003-5 and C0003-6. Section 5.2.1.4 of the DEIR presents a discussion of effects on water quantity under each of the Project alternatives. The statement referred to in the comment is correct in that “since there

would be no changes in net releases from the facilities or changes to future allocation patterns, the modeling results utilized in the PDEA are equally applicable to the No-Project, Proposed Project, and FERC Staff Alternatives; therefore, no additional comparison is necessary." Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information specific to this comment.

Response C0003-8:

Please see Responses to Comments C0003-1, C0003-5, and C0003-6. Modeling scenarios to support the Relicensing program are thoroughly presented in DWR's study plan reports and modeling runs supporting both the FERC license application's PDEA and this subsequent DEIR. Model run results for the Oroville Facilities based on 73 years (i.e., 1922–1994) of historical hydrology are contained in Section 5.4.1 and Appendix C of the PDEA. To provide a full range of comparisons for the PDEA, Future No-Action conditions were evaluated with comparisons to both Existing Conditions and the Proposed Action and Alternative 2 using this 73-year historical period of inflows. The results were sufficient for DWR to thoroughly evaluate power production, flood management, water quality, fisheries, recreation, and economic effects of the alternatives for environmental analyses contained in both the PDEA (January 2005) and the DEIR (May 2007). These analyses fulfill the requirements of CEQA. Although post-1994 hydrology was not used in model simulations, Lake Oroville inflows during the 1995–2000 period and during the 2000–2006 period were within the range of inflows already modeled, so additional modeling is unwarranted.

Response C0003-9:

Please see Responses to Comments C0003-5 and C0003-6.

Response C0003-10:

Thank you for your interest in the Oroville Facilities Relicensing Project; however, your comment on rulings related to SWP export pumps is outside the scope of the Project and does not raise issues or concerns appropriate to the environmental analysis in the DEIR. Furthermore, Judge Wanger has not ordered any changes in operations upstream of the Delta as part of the remedy phase of the lawsuit. For the purpose of analyzing the Project alternatives in the EIR, it would be speculative to further analyze potential future SWP operations that might be necessitated beyond the current level of analysis, and thus no further response is necessary.

Response C0003-11:

Please see Response to Comment C0003-5. Characterization of the observed ("actual") operations of the Oroville Facilities is presented in the Relicensing application study reports and in Chapter 4.0 of the DEIR. While your comment does not raise issues or concerns appropriate to the environmental analysis in the DEIR and thus no

further response is necessary, your comment is a part of the permanent record for this Project and has been forwarded to decision makers for consideration.

Response C0003-12:

The SA was developed and agreed to by the fisheries resource management agencies—NMFS, USFWS, and DFG—which are responsible for ensuring the adequate protection of Oroville Reservoir and areas downstream of Oroville Dam. NMFS's current OCAP Biological Opinion (BO), referenced by the commenter, has been challenged in federal court proceedings. Although there has been a hearing on the case, the remedy phase is just beginning and the current OCAP BO remains in effect. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

In any case, the Oroville Facilities will continue to operate to optimize the use of the cold water pool in Lake Oroville to benefit downstream fisheries as well as other Basin Plan objectives. The commenter is mistaken about the minimum LFC and High Flow Channel (HFC) flows:

- 700 cfs is the correct minimum flow in the LFC from April 1 to September 8.
- 800 cfs is the minimum flow in the LFC from September 9 to March 31.
- Minimum flows in the HFC are 1,700 cfs from October through March and 1,000 cfs from April through September in water years in which the preceding year's April-though-July unimpaired runoff was 55 percent of normal or greater.
- In water years in which the preceding year's April-though-July unimpaired runoff was less than 55 percent of normal, minimum flows in the HFC are 1,200 cfs from October through February and 1,000 cfs from March through September. These minimum flows have been determined to be adequate in a multi-year drought, as evidenced by the extensive operations modeling, which included multi-year drought cycles.

These flow releases, along with other fishery enhancement measures, are intended to continue the long-term trend of increasing the number of anadromous fish in the Feather River downstream of Oroville Dam, as has been the case since Oroville Dam and the Feather River Fish Hatchery were completed.

Response C0003-13:

Please see Response to Comment C0003-1. Lake Oroville inflows during the 1995–2000 period and the 2000–2006 period were within the range of inflows already modeled, so additional modeling is unwarranted.

Response C0003-14:

It is unclear what the commenter is referring to with the reference to "water quality enhancement program." If the commenter is referring to SA Article A112, Comprehensive Water Quality Monitoring Program, there is no analysis of this article in the EIR, as the article is a monitoring program only and therefore has no environmental effect in and of itself to analyze. Regarding the portion of the comment addressing hydrology and modeling, please see Responses to Comments C0003-1, C0003-8, and C0003-12.

Response C0003-15:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0003-16:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0003-17:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0003-18:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0003-19:

As indicated in Response to Comment C0003-1 above, the Oroville Facilities will continue to operate to optimize the use of the coldwater pool in Lake Oroville to benefit the downstream fisheries as well as other Basin Plan objectives. This includes measures necessary to manage Feather River water temperatures downstream of Lake Oroville within the FERC Project boundary in compliance with all applicable laws, permits, licenses, and agreements. Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for additional information relevant to this comment.

Response C0003-20:

Please see Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0003-21:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information relevant to this comment.

Response C0003-22:

Current levels of mercury contamination in Project area waters are discussed in Section 4.2 of the DEIR. Additionally, several of the study plan reports (e.g., SP-W1 and SP-W2) discuss mercury levels in water samples and bioaccumulation levels in the Feather River watershed.

Fish consumption advisories issued by the California Environmental Protection Agency are relatively common in the Sierra Nevada foothills, the Delta, and the Coast Range of California, where historic mercury ore mining and processing or gold mining activities occurred. However, OEHHA indicates that there have been no incidences of mercury-related health effects from consumption of sport fish in California. The potential for health effects from consumption of sport fish found in California is minimal unless a person is eating considerably greater quantities of fish than recommended.

Mercury accumulation is an existing condition of the Oroville Facilities, as well as almost all of the reservoirs and rivers in the Sierra Nevada foothills, where historic mining activity occurred. None of the Project alternatives (the No-Project Alternative, the Proposed Project, or the FERC Staff Alternative) would result in a change to either the rate or the amount of mercury accumulation within the FERC Project boundary. Although no practicable mitigation measures exist for mercury accumulation, both the Proposed Project and the FERC Staff Alternative include measures to educate and notify the public about safe limits on the consumption of fish. Mercury accumulation is addressed in the DEIR, as it is a part of the environmental baseline and would continue to occur at the same rate under all Project alternatives. Therefore, although the comment raises an important issue, addressing source control for incoming mercury is beyond the scope of this DEIR.

Response C0003-23:

The commenter's description of Proposed Project benefits and support for the Project is noted.

COMMENTS FROM THE COUNTY OF PLUMAS AND THE PLUMAS COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

ADDITIONAL COMMENTS ON OROVILLE EIR BY PLUMAS COUNTY

The Oroville Facilities are located east of State Highway 99 and straddle State Highway 70 as it passes through the City of Oroville. Oroville Dam, Lake Oroville, and related facilities occupy approximately 41,100 acres in the foothills of the Sierra Nevada. Average annual unimpaired runoff into the lake is about 4.2 maf. Upstream of the Oroville Facilities, the major tributaries of the upper Feather River drain a watershed that is largely (approximately 70 percent) owned by the Federal Government (primarily the United States Forest Service [USFS] and is managed for multiple uses. Plumas County contains most of the Upper Feather River Watershed and jointly manages most of the watershed with the USFS.

Construction and operation of the Oroville Facilities have contributed, along with previous developments in the watershed, to the alteration of instream water temperatures in the lower Feather River. Based on the results of relicensing studies, the volume of flow released from the Oroville Facilities potentially affects water temperatures as far downstream as the Honcut Creek confluence (DWR unpublished modeling results) and have eliminated salmonid access to over ninety per cent of the natural salmonid habitat that historically was mostly located in Plumas County. Although DWR's 1983 Agreement with DFG established water temperature targets to meet water temperature objectives for the Feather River Fish Hatchery (FRFH), water temperature targets stipulated in both the 1983 Agreement between DWR and the California Department Fish & Game (CDFG) and in the NOAA Fisheries 2002, 2004a Biological Opinions (BOs) are also intended to limit potential adverse water temperature-related effects on salmonids in the lower Feather River. Water temperatures in the LFC are of particular interest, as the majority of Chinook salmon spawning activity occurs in the LFC. C0004-1

2007 AUG 20 PM 3:57

Access to project facilities is largely provided by State Highway 70, State Highway 162, and Oro Dam Boulevard. Water stored in Lake Oroville is released to meet a variety of contractual, flood management, and environmental commitments in all types of water year conditions, including the following:

A. Flood control criteria outlined by USACE;

B. Water supply of up to 936,000 acre-feet (af) per year to senior water right holders along the Feather River from Lake Oroville to the confluence with the Sacramento River including the Feather River Service Areas (FRSA);

C. To satisfy conditions in the 1983 agreement between CDFG and DWR concerning the operation of the Oroville Facilities for management of fish and wildlife;

D. To satisfy the conditions in the 1986 Coordinated Operations Agreement for CVP operation;

E. Satisfy conditions in DWR's water right permits that were last amended in SWRCB Water Right Decision 1641 (D-1641). D-1641 requires the operations of the SWP and the CVP, owned and operated by USBR, to meet the water quality standards outlined in the *1995 Water Quality Control Pl an for the San Francisco Bay/Sacramento–San J oaquin Delta Estuary* (Bay-Delta Plan);

F. Satisfy conditions in the biological opinions for the CVP and SWP long-term Operations Criteria and Plan issued by NOAA Fisheries and USFWS in 2004 and 2005.

The senior water right holders on the Feather River are the Thermalito Irrigation District; the South Feather Water and Power Agency (formerly Oroville-Wyandotte Irrigation District); the Western Canal Water District; the Joint Water District Board (comprising the Richvale Irrigation District, the Biggs-West Gridley Water District, the ButteWater District, and the Sutter Extension Water District); the Tudor Mutual Water Company; the Oswald Water District; the Garden Highway Water Company; and the Plumas Mutual Water Company. The settlement of water rights for these entities is typically expressed in terms of acre-feet of annual entitlement, although some settlement agreements also stipulate specific rates of flow in cubic feet per second.

Identified Federally listed endangered and threatened fish species affected by the operation of DWR's Oroville facility on the Feather River are:

- CV spring-run Chinook salmon
- CV steelhead
- SR winter-run Chinook salmon
- CCC steelhead

C0004-2

Identified proposed critical habitat for CV spring-run Chinook salmon and CV steelhead in the Feather River lies below the DWR Fish Barrier Dam. While Lake Oroville is a key storage component of the SWP; the current alternatives contained In the Draft EIR mistakenly applies only to the Oroville Facilities, and not the other elements of the SWP operations. This segmentation of the SWP project from the rest of the SWP units violates CEQA In two major ways: It eliminates consideration of major environmental Impacts from the proposed operation of the Oroville facility downstream and eliminates real consideration of the cumulative Impacts of SWP operation to both the lower Feather River and the Sacramento River and Bay/Delta downstream of the project.

C0004-3

In 2004, NOAA Fisheries approved an OCAP BO for the CVP and SWP in compliance with Section 7 consultation requirements of the ESA (NOAA Fisheries 2004). The 2004 OCAP superceded the 1993 Sacramento River Winter-Run Chinook Salmon Biological Opinion (WRO) for the operation of the Federal CVP and California SWP (NOAA Fisheries 1993) and all previous interim and supplemental OCAP BOs for the effects of CVP and SWP operations on spring-run Chinook salmon and steelhead. In addition, the ongoing operations at the following DWR facilities were addressed in the 2004 OCAP BO. This BO was recently found to be legally flawed and was struck down by a federal judge from the Eastern District of California. The BO covered the Oroville-Thermalito Complex (i.e., FERC Project No. 2100), the Harvey O. Banks Delta Pumping Plant, the Clifton Court Forebay; the Skinner Fish Protective Facility, the Northbay Aqueduct, and the Suisun Marsh Salinity Control Gates.

C0004-4

The terms and conditions listed in the recently negated OCAP BO (NOAA 2004) for implementing these measures for the Lake Oroville and Feather River operations were to "avoid or minimize adverse effects of Lake Oroville operation" and to restore natural reproduction of CV spring run salmon and CV steelhead and to manage cold water storage to provide suitable habitat below the fish barrier dam below lake Oroville. This Draft CEQA document does not contain an adequate discussion of potential flow regimes below Oroville to protect these fish, nor does the draft document adequately address temperature needs for listed salmonids In either the Low Flow section or the High Flow sections of the Feather River.

C0004-5

C0004-6

In 1996, USFWS released a Recovery Plan for Sacramento-San Joaquin River

Delta Native Fishes (USWFS 1996) that included recovery plans for spring- and fall-run Chinook salmon and the green sturgeon. The objective of this plan, with regard to spring-run Chinook salmon, was to restore survival rates of out-migrating smolts to levels that existed before construction of the CVP and SWP dams and export pumps in the south Delta. (See Recovery Plan for Sacramento-San Joaquin River Delta Native Fishes) In that recovery plan, the AFRP annual target production levels for anadromous salmonids in Central Valley rivers and streams were as follows (USFWS 2001):

- 110,000 fish for winter-run Chinook salmon
- 68,000 fish for spring-run Chinook salmon
- 750,000 fish for fall-run Chinook salmon
- 68,000 fish for late fall-run Chinook salmon
- 13,000 fish for steelhead.

Evaluation of the WUA for the adult spawning life stage of steelhead indicated that the maximum amount of spawning area in the LFC occurs at 1,000 cfs. The vast majority of steelhead spawning (December through March) currently occurs in the LFC compared to the HFC. C0004-7

Specific goals for the Feather River are 170,000 fish, combining both fall-run and spring-run Chinook salmon (USFWS 2001). To accomplish the Feather River targets, the following measures were recommended by the recovery plan:

- Supplement flows with water acquired from willing sellers.
- Develop and use a temperature model as a tool for river management.
- Evaluate the response of spawning salmonids to increased flows in the LFC.
- Evaluate the quality of spawning gravel, and, if indicated, consider renovating or supplementing gravel to enhance substrate quality.
- Evaluate the distribution of FRFH Chinook salmon in Central Valley stocks and determine the genetic integrity of Feather River spring-run Chinook salmon.

In the action proposed by DWR, the new minimum flow in the LFC would be 700 cfs, and would be increased to 800 cfs from September 15 to March 31 of each year to accommodate spawning, unless NOAA Fisheries, USFWS, and CDFG provide a written notice that a flow between 700 and 800 cfs would substantially meet the needs of anadromous fish (in which event, DWR may release that lower flow).

If the increase in minimum flow does not result in achievement of the temperature targets DWR would (i) curtail pumpback operations, (ii) remove shutters on Hyatt Intake to draw the flow release from lower reservoir elevation, and/or (iii) increase flow releases up to a maximum of 1,500 cfs or no more than the actual flow in the HFC, whichever is less, until a physical modification for providing colder water to the LFC is constructed. Low Flow Channel temperatures as measured at Robinson Riffle would be 56 from January until May, move to 63 during May, remain at 63 through August, and lower to 58 in September and be reduced to 56 from October to the end of December.

HFC flow requirements would remain as they are in the original License, and per the 1983 Agreement (ranging between 1,000 and 1,700 cfs based on year type). The increased intensity of competition for habitat likely contributes to adult pre-spawning mortality as well as redd superimposition. Pre-spawn mortality estimates in the lower Feather River from 2000 through 2003 were high when compared to reported estimates from some other systems (DWR 2004h). From 2000 through 2003, the pre-spawn

mortality estimate in the LFC and HFC averaged approximately 42.5 and 39.7 percent, respectively.

Based on the history of the project and the project's effect on the salmonid fishery, Plumas County suggests higher flows than are studied by the present draft CEQA document and specifically requests a new alternative that re-evaluates the defective BOs for the Oroville project. Pre-spawn mortality levels of 42.5 percent are unacceptable for the Low Flow section and should be studied at 1200 cfs as a monthly minimum flow. The High-Flow section pre-spawn mortality estimate of 39.7 should be evaluated at minimum flows of 2500 cfs to determine how much more spawning habitat can be created below Oroville Reservoir for the listed salmonids. No operation should be permitted until the OCAP BOs are reviewed and re-examined. C0004-8 C0004-9

DATED: August 20, 2007

Plumas County Flood Control & Water Conservation District

RESPONSES TO COMMENTS FROM PLUMAS COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

Response C0004-1:

The commenter is mistaken about the characterization of the Oroville Facilities contributing to over 90 percent of the loss of anadromous salmonid habitat in the Feather River Basin. DEIR Table 6.2-1, "Dam Construction and Anadromous Salmonid Habitat Losses in the Feather River Basin," shows that a cumulative 180.6 river miles of historic habitat are no longer accessible to anadromous salmonids due to historical construction of dams in the basin. The Oroville Facilities' contribution to the habitat loss is 66.9 river miles, which constitutes only 37 percent of the overall habitat loss. This original construction impact of the Oroville Facilities was mitigated by the construction and operation of the Feather River Fish Hatchery.

Response C0004-2:

Winter-run Chinook salmon and California Central Coast steelhead are analyzed in the Fisheries Biological Assessment for the Oroville Facilities. Because neither of these fish species or runs are present in the Feather River and no flow changes outside of the Feather River are included in any of the Project alternatives, the Oroville Facilities do not affect these species.

Response C0004-3:

The DEIR discloses fully the relationship between the Oroville Facilities and the rest of the SWP. The Proposed Project and FERC Staff Alternative do not propose to modify or dictate operations of the SWP. Future conditions in the Delta or changes in SWP operations may precipitate changes in the timing and/or the volume of water releases from the Oroville Facilities. However, these changes would be based on system-wide considerations that would be addressed in the revised OCAP BOs and would not be a result of any of the Project alternatives. This DEIR evaluates the potential environmental impacts that may be associated with the SA. Because none of the Project alternatives would alter the amount of water released from the Oroville Facilities, further analysis of Delta conditions is beyond the scope of this EIR. Within the DEIR, SWP and Delta cumulative effects are discussed in Section 6.2.1, Cumulatively Affected Resources and Related Actions; Section 6.2.2, Geographic Scope; Section 6.2.1.1, The State Water Project; Section 6.2.1.2, The Monterey Agreement; Section 6.2.1.3, The Monterey Settlement Agreement; Section 6.2.5.1, Water Quantity; and Section 6.2.6, Aquatic Resources.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

Response C0004-4:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for information relevant to this comment.

Response C0004-5:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for information relevant to this comment.

Response C0004-6:

DEIR analysis of flow effects on Central Valley Chinook salmon spawning (both spring- and fall-run) and Central Valley steelhead spawning is provided in Section 5.4, Impact 5.4-c, and is presented in detail in Appendix C3.4.1.1, Flow-Related Effects.

DEIR analysis of water temperature effects on Central Valley Chinook salmon life stages (both spring-run and fall-run) and Central Valley steelhead life stages are addressed in Section 5.4.4, Impact 5.4-c, and are presented in detail in Section C3.4.1.2, Water Temperature–Related Effects, of Appendix C3.

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

Response C0004-7:

The commenter is mistaken regarding the flow at which the maximum potential Weighted Usable Area (WUA) is achieved for steelhead in the LFC of the lower Feather River. The steelhead WUA curve is relatively flat, but achieves 98 percent of its highest value at 600 cfs flows; see Oroville Relicensing report SP-F16 and DEIR Appendix C3, Proposed Project Relative to Existing Conditions, Figure AQUA3.4-24, Low Flow Channel WUA Curves for Steelhead. The flow of 1,000 cfs identified by the commenter would result in a substantial reduction in the steelhead WUA in the LFC.

Response C0004-8:

The DEIR, Section C3.4.1.1 of Appendix C3, includes an extensive analysis of flow-related effects on the relative quantity and quality of suitable Chinook salmon and steelhead spawning habitat. Flows in the LFC from approximately 200 cfs through 3,000 cfs and 500–7,000 cfs for the HFC were studied for Chinook salmon and steelhead in the SP-F16 report, *Evaluation of Project Effects on Instream Flows and Fish Habitat*. The 800-cfs LFC flows included in the Proposed Project would maximize the potential relative quantity and quality of available suitable habitat for these species. Flows above or below the 800-cfs flow would result in a relative reduction in available suitable habitat. The flow of 1,200 cfs proposed by the commenter would result in an approximately 15 percent reduction in habitat compared to the flows included in the Proposed Project. Please see in this FEIR Chapter 3.0, Master Responses, The

Relationship between the Oroville Facilities and OCAP, for additional information relevant to this comment.

As reported in the Oroville Relicensing report SP-F10, Task 2B, pre-spawn mortality rates are high in the Feather River compared to other Central Valley rivers. Pre-spawn mortality rates can be due to a number of different stressor factors operating singularly and in combination. Some of the stressors relating to pre-spawn mortality of salmonids include fish condition factors, immigration and holding water temperatures, competition for habitat, spawning substrate suitability, disease, and angling-related stress. The Proposed Project and the FERC Staff Alternative include a number of habitat enhancement actions to address some of the stressors that contribute to increased pre-spawn mortality rates. The immigration and holding water temperature and disease stressors are addressed through the reduced water temperature requirements at Robinson Riffle. The fish segregation weir and gravel supplementation program would reduce the competition habitat stressor while the spawning substrate quality stressor would be addressed by the gravel supplementation program.

Response C0004-9:

It is not feasible to cease operations at the Oroville Facilities. The environmental actions included in the Proposed Project are intended to provide benefits as compared to the Existing Condition and the No-Project Alternative. The No-Project Alternative shows an incremental degradation in the conditions of a number of environmental resources as compared to the Existing Condition. Therefore, to do nothing until the OCAP BO is revised, as the commenter recommends, would be detrimental to the environment.

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COMMENTS FROM SUTTER COUNTY, THE CITY OF YUBA CITY, AND LEVEE DISTRICT #1

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August 20, 2007

Henry "Rick" Ramirez
Program Manager, Oroville Facilities Relicensing
California Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Re: Comments on Oroville Facilities Relicensing Draft EIR

Dear Mr. Ramirez:

This firm serves as special legal counsel to the County of Sutter ("County"), City of Yuba City ("City"), and Levee District No. 1 of Sutter County ("District").[1] This letter provides comments on behalf of the Sutter County Parties regarding the draft environmental impact report for the Oroville Facilities Relicensing ("DEIR"). The primary concern of the Sutter County Parties is that the DEIR includes no analysis regarding the proposed Project's significant environmental impacts associated with flooding and flood control. This issue was raised by several parties during the FERC NEPA process, but wholly ignored by FERC. FERC's repeated response to flood control issues has been to say that such issues are solely the jurisdiction of the U.S. Army Corps of Engineers ("Corps"). DWR appears to take the same position on the issue as FERC, with the DEIR containing no analysis regarding the Project's impacts to the environment associated with flooding and flood control. C0005-1

2007 AUG 22 PM 1:25

DWR may not avoid performing the flood control analysis required by CEQA simply because it believes that another agency has exclusive jurisdiction over the issue. Instead, the sole issue is whether significant environmental impacts may result from a project and, if so, the DEIR must analyze those impacts. (Public Resources Code, § 21100(b)(1); 14 C.C.R., §§ 15126(a) and 15126.2(a).) DWR may also not avoid analyzing flood issues associated with the Project based on the conclusion that these impacts are not significant. As set forth below, there is substantial evidence demonstrating that flooding and flood control issues associated with the Project are significant and warrant serious attention. In its current state, the DEIR is fatally flawed and we urge DWR to consider these comments and take the appropriate necessary actions. C0005-2 C0005-3

[1] Collectively, these three entities will be referred to as the "Sutter County Parties."

A. Background on the Interests of the County, City and District

The County is a political subdivision of the State of California, and represents the health, safety and welfare of over 90,000 residents, as well as their property and businesses, which abut the Feather River downstream of Oroville Dam and Reservoir. Flow and flood related conditions on the Feather River affect these public health and safety and property and business interests. The operation of Oroville Dam and Reservoir has a direct effect on flow and flood related conditions on the Feather River.[2] Oroville Dam and Reservoir operations are the subject of DWR's project. The County, therefore, has a direct interest in this matter.

The City is a municipal corporation, and represents the health, safety and welfare of over 58,000 residents, as well as their property and businesses, which abut the Feather River downstream of Oroville Dam and Reservoir. Flow and flood related conditions on the Feather River affect these public health and safety and property and business interests. The operation of Oroville Dam and Reservoir has a direct effect on flow and flood related conditions on the Feather River. Oroville Dam and Reservoir operations are the subject of these proceedings. The City, therefore, has a direct interest in this matter.

The District is a levee district operating under the Levee District Law of 1959 (Cal. Water Code § 70000 *et seq.*) and represents the flood control interests of its constituents insofar as it is authorized and obligated to provide maintenance to sections of levees protecting its service area in the vicinity of Yuba City and adjoining communities of Sutter County, along the Feather River downstream of Oroville Dam and Reservoir. Flow and flood related conditions on the Feather River affect these flood control interests. The operation of Oroville Dam and Reservoir has a direct effect on flow and flood related conditions on the Feather River. Oroville Dam and Reservoir operations are the subject of these proceedings. The District, therefore, has a direct interest in this matter.

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[2] The County has engaged DWR since at least 1997 on the subject of the flood control operations of Oroville Dam and Reservoir. *See* Letter from Stuart Somach, Special Legal Counsel to Sutter County, to David Kennedy, Director of DWR (August 28, 1997), attached hereto as Exhibit A; *see* also Letter from Donald B. Gilbert, Special Legal Counsel to Sutter County, to David Kennedy (September 12, 1997), attached hereto as Exhibit B. Most recently, the County has diligently engaged DWR on flood control operations within the specific context of the relicensing process, without result. *See* Letter from Stuart Somach, Special Legal Counsel to Sutter County, to Rick Ramirez, Program Manager, Oroville Facilities Relicensing Program (June 30, 2004), attached hereto as Exhibit C; *see* also Letter from Stuart Somach to Lester Snow, Director of DWR (July 26, 2004), attached hereto as Exhibit D; Letter from Larry T. Combs, County Administrator, and eight other local signatories, to Lester Snow (October 24, 2005), attached hereto as Exhibit E. The County has also met with Lester Snow on two occasions.

B. Background on the Oroville Facilities Flood Control Operations

The State Water Project ("SWP") was authorized in 1959 by the California Legislature pursuant to the California Water Resources Development Bond Act. (Cal. Water Code § 12930 *et seq.*) The major storage component of the SWP is Oroville Reservoir, which began to impound water after Oroville Dam was completed in 1967. Oroville Reservoir contains 3,538,000 acre-feet of storage.

Pursuant to the federal Flood Control Act of 1958, Pub. L. No. 85-500, 72 Stat. 297 (1958), the federal government participated in financing of a portion of the project costs for the Oroville Facilities in return for a reservation of flood control space behind Oroville Dam.[3] The original flood control reservation in Oroville Reservoir was 750,000 acre-feet, as part of the 3,538,000 acre-feet of storage. By contract, the State is obligated to maintain this allotted flood control space to provide for the flood control benefits upon which the federal financial contribution to the dam's construction was predicated, and to also operate the dam for flood control in accordance with rules and regulations prescribed by the Secretary of the Army pursuant to the provisions of Section 7 of the Flood Control Act of 1944.[4] (See 58 Stat. 890.)

The flood control operations of Oroville Dam are currently governed by the "Report on Reservoir Regulation for Flood Control", promulgated by Sacramento District office of the Corps, in August 1970 and called herein the "1970 Report." The 1970 Report is attached hereto as Exhibit F. At the time the 1970 Report was written, a project on the Yuba River known as the Marysville Dam had been authorized but not yet built.[5] Marysville Dam was expected to provide an additional measure of flood control regulation on the Yuba River before its confluence with the Feather River. This would

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[3] Twenty-two percent of the construction cost of the dam and reservoir, not including power and recreational facilities, was allocated to flood control with a not-to-exceed cost of $85 million.

[4] The Flood Control Act of 1944 requires the Secretary of the Army to prescribe regulations for the use of storage allocated to flood control at all reservoirs constructed wholly or in part with federal funds provided on the basis of that purpose, and also requires that the operation of any such project be in accordance with those regulations. Flood Control Act of 1944, Pub. L. No. 78-534, 58 Stat. 887 (1944). Regulations subsidiary to the Flood Control Act further require the Secretary of the Army to develop a water control plan for the operation of such reservoirs, and to revise the water control plan to reflect any "changed conditions". 33 C.F.R. § 208.11.

[5] Marysville Dam was authorized by the Flood Control Act of, Pub. L. No. 89-789, 80 Stat. 1405 (1966).

have provided additional regulation of peak flow conditions on the Feather River, when Marysville Dam was operated in conjunction with other facilities on the Yuba River.[6] Accordingly, the 1970 Report prescribed a single flood control diagram and two flood release schedules for Oroville.

The rules for flood control contained in the 1970 Report called for a 750,000 acre-foot flood pool in Oroville Reservoir, in order to keep overall Feather River flows within downstream channel capacities both above and below the confluence of the Yuba River.[7] At the same time, however, an "Emergency Spillway Release Diagram" (in place until the construction of Marysville Dam) provides for emergency "surcharge" operations at Oroville Dam. These surcharge operations would occur, when necessary and until construction of Marysville Dam, by adjusting release flows from the main gated spillways as the reservoir filled during a flood event. The operation of the emergency spillway release rules would result in an increased risk of high flows in excess of 150,000 cfs in the Feather River below Oroville Dam and in excess of 180,000 cfs upstream of Yuba City.[8]

Marysville Dam was never built. As such, the Yuba River's flow into the Feather River at Yuba City is not as safely regulated as was expected at the time the 1970 Report was generated. In the meantime, for more than thirty-five years a set of emergency spillway release flood control rules has been applied to the operation of Oroville, resulting in an increased risk that its emergency spillway will be used to effect flood control. While the surcharge operations involved with the current flood control regime may not pose a risk to dam safety, they certainly pose a reduced flood control capability in the Feather River below Oroville. It is self-evident that the use of the "surcharge" space above the emergency spillway crest removes any flexibility that Oroville Reservoir may have to account for unforeseen circumstances in the floodplain below.

The emergency spillway release procedures are not the only outdated element of the 1970 Report. A fundamental assumption of the 1970 Report is that the "Standard

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[6] Other facilities on the Yuba River include New Bullards Bar Reservoir, which controls about 36 percent of the Yuba River drainage. (*See* 1970 Report at p. 3.) The remaining sixty-four percent of the Yuba River drainage is uncontrolled, without the addition of Marysville Dam and Reservoir. As the Corps put it in the 1970 Report, "[c]omplete protection on the Yuba River is not possible without the authorized Marysville Reservoir." (*Ibid.*)

[7] The intent is to keep flows to a maximum of 300,000 cfs below the mouth of the Yuba River, because the channel capacity of the Feather River levees there is 300,000 cfs. (*See* 1970 Report, Chart A-1.)

[8] Both sets of release schedules for Oroville Dam and Reservoir are contained in two diagrams contained in the 1970 report known as the "Flood Control Diagram" and the "Emergency Spillway Release Diagram," respectively. (*See* 1970 Report, Charts A-1 and A-2.)

Project Storm" will result in peak inflows to Oroville of 440,000 cfs. (1970 Report, Chart 32.) This assumption is derived from a review of data collected during the timeframe 1901 to 1966. Of particular significance are the thirteen historic floods with the highest flows during this period. (1970 Report, p. 11.) This data is considerably outdated, however, because between 1967 and 1997 there were nine floods that were equal to or in excess of the historic floods used to derive the Standard Project Storm inflow figure. (See *2002 Sacramento and San Joaquin River Basins Comprehensive Study ("2002 Study")*, Table B.6.15, a copy of which is attached hereto as Exhibit G.) The two most significant regional flood events of the last century occurred in 1997 and 1986, both years not considered in determining the Standard Project Storm inflow figure.

An additional element of concern that must be addressed as part of the current proceedings is the effect that operation of the Oroville Dam and Reservoir may have on downstream levees. The hydroelectric releases licensed or relicensed in these proceedings, as well as the water supply conveyance utilizing the Feather River, create a flow condition on the Feather River not contemplated when those levees were first constructed and subsequently engineered and maintained. DWR and its contractor receive the benefit of the conveyance and use of the levee system on the Feather River during times when, but for their actions, little flow would exist on the Feather River. The recent history of levee failures indicates that long-term saturation could be causing catastrophic levee failures. Consequently, DWR and its contractor must bear the burden of maintaining those levees, including the incremental degradation of those levees caused by high summer and fall flows, through the flood related operations described above.

C0005-4

C0005-5

C. The DEIR Fails to Analyze Significant Environmental Impacts That May Occur As a Result of Flood Control Operations at Oroville

As the lead agency, DWR must determine whether the Oroville project will result in any "significant effects on the environment." (Pub. Resources Code, § 21082.2(a).) A "significant effect on the environment" is "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance." (14 C.C.R., § 15382.) Whether a particular impact is considered "significant" is judged on the "fair argument" standard. (*Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1399-1400.)

Despite the indifference to flood control issues demonstrated in the DEIR, DWR is *well aware* of the significant impacts to the environment and public safety that may occur during a flood event downstream of Oroville. DWR appears to exhibit a split personality on these matters: the DWR seeking relicense of the Oroville Facilities deems the flood issues as insignificant, while the other DWR personality, known as "Flood Safe," decries an imminent crisis in flood control throughout the Central Valley.

C0005-6

According to DWR's Flood Safe program, a series of factors "have created a ticking time-bomb for flood management in California." (*Flood Warnings: Responding to California's Flood Crisis* (2005) Executive Summary, p. i, a copy of which is attached hereto as Exhibit H.) In the *Flood Warnings* report and various other DWR publications, DWR explains that California must act now in order to prevent an "even greater calamity in the future." (*Id., supra,* at p. 2; see also *2002 Study,* attached as Exhibit G; *Yuba County Water Agency Technical Memoranda 2002a and 2002b; Yuba-Feather River Forecast-Coordinated Operations Program*; and environmental review documents associated with the Yuba-Feather Supplemental Flood Control Project.) In fact, DWR is acting to address flooding issues and DWR is in the process of overseeing a massive levee repair project involving *billions* in dollars of grant money – yet the DEIR declares that flood control issues at Oroville "have no potential to affect on environmental resources." (DEIR, p. 5.0-2.) This conclusion is plainly not true and is not supported by any analysis or reference to substantial evidence. C0005-7

D. The DEIR Fails to Sufficiently Describe the Project's Environmental Setting as it Relates to Flood Control Issues.

An EIR must contain a sufficiently detailed description of the proposed project's regional environmental setting. (14 C.C.R., § 15125.) The DEIR fails to describe the regional flood control system and, in particular, the deteriorated state of the system that DWR has elsewhere described as a "ticking time bomb." It is imperative that DWR amend the DEIR to include a clear description of the regional flood control system and the role played by Oroville's thirty-seven year old, incomplete, operations plan. The studies cited in this letter provide an excellent source of information for preparing the revised description of the Project's environmental setting (e.g. *Flood Warnings*, and *2002 Study*). C0005-8

In addition, the DEIR fails to provide sufficient information regarding the interrelation of global warming and flood control. Valuable information relevant to this issue is found in the 2002 Study. Appendix A to the 2002 Study includes a "Comprehensive Study Information Paper: Global Climate Change." The information paper notes that, "[c]onsidering California's heavy dependence on reservoirs and snow pack for water supply and flood management, climate change makes this state especially vulnerable to hydrologic changes. Therefore, the impacts and uncertainties of climate change need to be evaluated in future studies to ensure that Central Valley water systems can continue to provide adequate flood protection, water supply, ecosystem functions, and overall system flexibility." DWR must amend the DEIR to include analysis of this crucial issue – especially in light of the fact that the hydropower license at issue has a term of 50 years, during which time the impacts of global warming situation are anticipated to increase significantly. C0005-9 C0005-10

E. The DEIR Fails to Analyze the Cumulative Impacts Associated With Oroville's Flood Control Issues.

Environmental impact reports must analyze cumulative impacts to the environment from the "incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects." (14 C.C.R., § 15355(b); see *Los Angeles Unified School Dist. v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1034-1025.) The flood control aspect of the Oroville project is part of a larger flood control project known as the Sacramento River Flood Control Project ("SRFCP"). The SRFCP protects millions of northern California citizens from loss of life and property associated with flood events. Now, DWR is taking the lead in notifying the public that the SRFCP and other important California flood control systems are "deteriorating" and in dire need of repair and augmentation. (See *Flood Warnings*, p. i, attached hereto as Exhibit H.) DWR's own publications demonstrate that the various flood control components are part of an integrated system. (See *Flood Warnings*.) As such, flood control operations at Oroville may result in cumulative impacts on downstream flood control structures and operations. These cumulative impacts must be analyzed in the DEIR. C0005-11

F. DWR May Not Avoid the Mandates of CEQA Based on the Claim That Flood Control Is the Exclusive Jurisdiction of the Corps.

Unlike FERC, DWR does not claim (at least not yet) that CEQA does not apply to flood control matters on the basis that the Corps has exclusive jurisdiction to regulate flood control at the Oroville Facilities.[9] Whether the Corps has exclusive jurisdiction over flood control matters has no bearing on the statutorily mandated duties of DWR, as the lead agency, to comply with CEQA. Virtually every EIR prepared includes sections on topics where *action* is beyond the jurisdiction of the lead agency (e.g. endangered species issues [jurisdiction of federal/state resource agencies]). Whether *action* on a matter is beyond the jurisdiction of an agency is irrelevant, however, regarding a lead agency's duty to comply with the *analysis* provisions of CEQA. DWR must amend the DEIR to analyze flooding and flood control issues, even if DWR concludes that other agencies are responsible for action on such matters. The failure to analyze flood control issues associated with the Oroville Facilities is a fatal flaw in the DEIR. C0005-12

[9] On this point, we request clarification on DWR's position regarding whether the Corps, alone, has jurisdiction to regulate flood control at Oroville. Statements in the DEIR suggest that there is "collaboration" between the Corps and DWR. (See DEIR, p. 2-6.) In contrast, the FEIS claims that such operations are solely within the jurisdiction of the Corps.

G. The DEIR Fails to Analyze a Reasonable Range of Alternatives

An EIR must evaluate a reasonable range of project alternatives. (14 C.C.R., § 15126.6(a) and (f).) The DEIR fails to do so. Instead, in addition to the obligatory "no project alternative," the DEIR purports to analyze only the March 2006 Settlement Agreement and the FERC Staff Alternative. These "alternatives" are, in fact, so closely related that they do not constitute different project alternatives – especially in light of the statements in FERC's environmental impact statement (and elsewhere) committing FERC to perform the tasks set forth in Appendix B to the Settlement Agreement even though these tasks are not considered part of the FERC Staff Alternative. C0005-13

The Federal Power Act provides that hydropower licenses must be "best adapted" to a comprehensive plan addressing several factors, including flood control. (See 16 U.S.C., § 803(a).) This provision, in combination with the alternatives analysis requirements of CEQA, mandates that the DEIR include project alternatives with flood control components. The 2002 Study, which is attached hereto as Exhibit G, provides that an additional 200,000 acre-feet of flood storage in Oroville (in addition to increased storage at Folsom Dam and other places) is necessary to meet DWR's stated goals of providing 200-year flood protection for major urban areas and 100-year flood protection for small communities. (See 2002 Study, Appendix D, pp. IV-15 through IV-17.) The DEIR must be amended to include project alternatives with reasonable flood control analysis. C0005-14

H. The DEIR Improperly "Piecemeals" the Oroville Flood Control Issues from the Other Aspects of the Project

CEQA requires that lead agencies define the "project" to mean "the whole of an action," and not piecemealed parts. (14 C.C.R., § 15378(a); *McQueen v. Board of Directors of the Mid-peninsula Regional Open Space District* (1988) 202 Cal.App.3d 1136, 1143.) The DEIR defines the project as the "Settlement Agreement for Licensing of the Oroville Facilities Project No. 2100 signed March 21, 2006." (DEIR, p. ES-1.) The Settlement Agreement contains numerous elements, including Article 130 regarding flood control. The DEIR contains no analysis, however, of the environmental impacts associated with Article 130 and the flood control aspects of the project. Instead, Article 130 and a host of other project components not analyzed in the DEIR are listed in Table 5.0-1 and "are not evaluated in the DEIR because they have no potential to affect on environmental resources." (DEIR, p. 5.0-2 and 5.0-3.) As set forth above, the flooding that may occur as a result of the Oroville Facilities' flood control program *is* a significant environment impact, and the DEIR's failure to analyze this issue is an improper piecemealing of a larger project into smaller parts. C0005-15

As an initial matter, DWR (and FERC) must recognize that the "project" at issue, which is the proposed operation of the Oroville Facilities pursuant to terms of a settlement agreement relating to DWR's application for a 50-year FERC hydropower license, explicitly includes flood control issues pursuant to section 10 of the Federal Power Act ("FPA"). (16 U.S.C., § 803(a).) Section 10 of the FPA provides: C0005-16

> That the project adopted, including the maps, plans, and specifications, shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses, including irrigation, *flood control*, water supply, and recreational and other purposes referred to in section 797 (e) of this title if necessary in order to secure such plan the Commission shall have authority to require the modification of any project and of the plans and specifications of the project works before approval. (Emphasis added.)

Thus, flood control issues are an integral component of the agreement relating to DWR's license application. The claim that these issues are not significant is belied by: DWR's "Flood Safe" program; daily headlines in California's newspapers warning of levee failures; the incomplete local flood control infrastructure (i.e. failure to build Marysville Dam); and the recent history of catastrophic damage resulting from flooding both in Northern California (e.g. 1997) and elsewhere (e.g. Hurricane Katrina). DWR must analyze flooding and flood control issues relating to the Oroville Facilities in the DEIR. C0005-17

I. Conclusion and Request for Action

Major flood events on the Feather River system were recorded in 1950, 1955, 1986 and 1997. In the New Year's flood of 1997 alone, more than 250 square miles were flooded, resulting in nine deaths, the damage or destruction of almost 20,000 homes, and an estimated $1.8 billion in economic losses. California courts have found the State at fault for lack of reasonable flood protection. (*Paterno v. State of California* (2003) 113 Cal.App.4th 998.) The Sutter County Parties, which have directly experienced the extraordinary cost to life and property caused by flooding on the Feather River below Oroville Dam, respectfully request that DWR take the following actions:

1. Prepare a revised DEIR that includes adequate analysis of the flood control impacts and issues associated with operating the Oroville Facilities for the duration of the proposed FERC license; C0005-18

2. Request that the Corps immediately develop a revised operational plan for Oroville to establish flood-control management on the Feather River system that accounts for the absence of Marysville Dam and full regulation of the Yuba River, without the necessity for surcharge operations of or at the Oroville Facilities above the ungated spillway; C0005-19

3. Investigate the adequacy and structural integrity of Oroville Dam's ungated auxiliary spillway that may currently pose a risk to the Project facilities and downstream levees in Sutter County in the event extreme flood releases are required, as recently experienced in flood release events of 1986 and 1997, and to take all necessary actions to correct any identified deficiencies, in this regard; C0005-20

4. Expedite completion of the ongoing investigations of the adequacy and structural integrity of levees on the Feather River, in the context of DWR's hydroelectric, water supply and flood control operations and to repair, replace and maintain those levees to provide appropriate levels of flood protection, in light of these operations. C0005-21

Very truly yours,

Stuart L. Somach

NAJ:mm

Enclosures

RESPONSES TO COMMENTS FROM SUTTER COUNTY, THE CITY OF YUBA CITY, AND LEVEE DISTRICT #1

Response C0005-1:

The DEIR includes significant discussions on flood management. The flood management operations and benefits of the existing Oroville Facilities are explained in various sections of the DEIR (see Sections 2.1.3, 3.2.2.6, 4.2.1.1, 4.2.1.3, and 4.15), and this carries over equally to all of the alternatives considered. The alternatives were analyzed against these existing conditions. In Section 5.1.4.1, the DEIR presents analysis related to the attenuation of peak flood flows. Further, in Section 5.2.1.4 the DEIR states, "There are no measures that have the potential to substantially alter an existing drainage pattern of the site or area, including alteration of the course of a stream or river, or a substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on- or off-site, with the exception of the possibility for planned flooding of previously disconnected floodplain during implementation of the Riparian and Floodplain Improvement Program."

Additionally, this topic is outside the responsibility of FERC, as stated in its FEIS, page 74: "Because the Corps is primarily responsible for flood control operations, these issues are outside of the FERC relicensing process."

Response C0005-2:

The DEIR analyzes an array of alternatives, including the Proposed Project, and their impacts. None of the alternatives consider modifying the flood operations component of the Oroville Facilities, assuring that the benefits from those operations are secure. Modifications to the flood control operations are not possible through this process since neither FERC nor DWR has the authority to change flood management operations and any alternatives that consider modifications could be deemed infeasible under the State CEQA Guidelines. Furthermore, flood studies were performed by DWR to support the relicensing program (refer to Relicensing study SP-E4, dated November 2004). Studies conducted to date have demonstrated that flood operations in accordance with USACE criteria significantly protect downstream lands and therefore result in positive environmental effects, not "significant environmental impacts" as implied by the commenter.

Response C0005-3:

Flood issues associated with operation of the Oroville Facilities were addressed in various sections of the DEIR and, as explained, are parts of all of the alternatives. DWR agrees that flood management is a significant issue that continues to evolve. However, the Relicensing proceedings are not an appropriate venue to address USACE's existing congressionally authorized flood operations protocols. The DEIR is solely for the purpose of obtaining a new FERC license to continue operation of the Oroville Facilities power plants. Furthermore, the DEIR does not avoid analyzing flood issues because they are not significant. The DEIR identifies some of the articles

included in the SA (including Article A130, Flood Control) as agreements to develop plans and programs. Plan and program development do not typically result in environmental effects. Therefore, those plan and program development activities are not evaluated in the DEIR. This is consistent with the State CEQA Guidelines.

Response C0005-4:

The hydroelectric releases are fully contained within Project facilities and do not affect downstream releases, since power is generated when releases are made for the other SWP operational requirements and purposes, not vice versa. None of the alternatives considered would change the overall releases, or their priority, from Oroville Dam and Reservoir. Since no significant changes in operation are proposed, there should be no effect on the levee system from relicensing the power facilities. Furthermore, the flood control levees downstream of Oroville Dam, contrary to the Sutter Parties' assertions, are engineered and maintained to standards set forth by USACE and are designed to work in concert with the operations at Oroville Dam. In any event, it should be recognized that these levees are not part of the licensed Project works, and are outside the boundary for Project No. 2100, and thus not subject to FERC jurisdiction.

Response C0005-5:

Releases into the Feather River are governed by a wide array of laws, rules, regulations, and other obligations. Releases for exports to downstream water contractors are the lowest water release criteria, being subordinate to water released to maintain Feather River fisheries and habitat, water released to maintain or improve water quality in the San Francisco Bay/Sacramento–San Joaquin Delta (Bay-Delta) area, water released to meet requirements of local and superior water rights holders, and flood control releases. Furthermore, State law provides, with few exceptions not applicable here, that: "[i]t is the responsibility, liability and duty of the reclamation districts, levee districts, protection districts, drainage districts, municipalities, and other public agencies within the Sacramento River Flood Control Project limits, to maintain and operate the works of the project within the boundaries or jurisdiction of such agencies" (California Water Code, Section 8370).

Response C0005-6:

The role of existing facilities and operations in flood management is described in several locations throughout the DEIR; for example, please see Section 3.2.2.6, beginning on page 3.2-10. The important flood management function of the Oroville Facilities is clearly described in the DEIR, Section 4.2.1.3, beginning on page 4.2-3. DWR agrees that flood management is an essential role of the Oroville Facilities. The Proposed Project includes SA articles that acknowledge the role of the Oroville Facilities in continuing flood management for the Feather River (SA Articles A130, A131, and B103).

Response C0005-7:

As noted above, the hydroelectric releases are fully contained within the reservoirs of the facilities and do not affect downstream releases; none of the alternatives have the potential to modify the flood management functions of the Oroville Facilities and as such, have no significant environmental impacts related to the flood management functions of the facilities relative to the baseline for this CEQA document. There is substantial discussion of the flood operations and benefits from those operations in the DEIR (please see Response to Comment C0005-1).

Response C0005-8:

As noted above, the DEIR includes significant discussions on flood management. The flood management operations and benefits of the Oroville Facilities are explained in various sections of the DEIR (see Sections 2.1.3, 3.2.2.6, 4.2.1.1, 4.2.1.3, and 4.15), and these benefits carry over equally to all of the alternatives considered. The alternatives were analyzed against these existing conditions.

DWR disagrees that the Oroville Dam's flood control plan is incomplete as asserted by the commenter. However, DWR's Division of Operations and Maintenance is an active participant in joint studies with Yuba County Water Agency to address flood operations, including obtaining any clarification of the USACE Flood Operations Manual that may be needed.

Response C0005-9:

Climate change and its relationship with the operation of the Oroville Facilities are addressed in Section 6.2 of the DEIR. Furthermore, all of the Oroville Facilities dams and spillways are designed to safely pass the Probable Maximum Flood. The inflow value for the Probable Maximum Flood is derived through extensive hydrologic and climatologic studies, and reflects the fact that extreme climatic conditions are possible in future years, and that those extreme climate conditions could cause rapid runoff into the lakes. Results from these studies provide the basis for the Probable Maximum Flood estimates, and under Part 12 of FERC's Regulations, FERC has judged DWR's studies to be acceptable to protect the facilities from flood damage.

Response C0005-10:

Please see in this FEIR Chapter 3.0, Master Responses, The Relationship between the Oroville Facilities and Climate Change, for information specific to this comment.

Response C0005-11:

The Oroville Facilities' flood management functions are described in the DEIR, and DWR acknowledges the continuing role of the Oroville Facilities in flood management. SA Article A130 commits DWR to continued compliance with "…the rules and regulations prescribed by the Secretary of the Army pursuant to Section 204 of the Flood Control Act of 1958 and other applicable law." The DEIR found no direct impacts

from the Proposed Project that would contribute to a cumulative impact. However, it should be noted that the existing Oroville Facilities actually reduce downstream flooding and the associated flood damages that would occur were it not for the Oroville Facilities. In fact, the Proposed Project includes SA Articles A131 and B103, which are intended to improve flood forecasting and agency coordination related to flood management.

Response C0005-12:

Please see Response to Comment C0005-11.

Response C0005-13:

The range of alternatives in the DEIR is adequate and satisfies CEQA. The purpose of the requirement for an analysis of alternatives is to identify ways to avoid or substantially lessen the significant effects that a project may have on the environment while still achieving most of the basic project objectives. The range of alternatives is governed by the "rule of reason": "An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation" (State CEQA Guidelines Section 15126.6[a]).

The Proposed Project, the FERC Staff Alternative, and the No-Project Alternative evaluated in the DEIR satisfy CEQA because in the unique context of the FERC relicensing process, they offer a range of reasonable options with different environmental effects and benefits that fosters informed decision making and public participation. The Proposed Project is the end product of a multi-year collaborative relicensing process involving a large group of stakeholders, including federal, State, and local governments, resource agencies, federally and non-federally recognized tribes, nongovernmental organizations, local interest groups, and local residents. As discussed in Section 2.2 of the DEIR, DWR and the stakeholders considered an extensive array of alternatives for the Proposed Project, which were referred to during the relicensing process as PM&E measures. Work Groups consisting of stakeholders evaluated all the proposed PM&E measures and recommended for further evaluation in DWR's PDEA those PM&E measures that could reasonably be expected to produce beneficial results or address potential Project effects. The process also considered FERC requirements for hydropower relicensing. The stakeholders then spent many months negotiating a comprehensive Settlement Agreement that eventually became the Proposed Project evaluated in the DEIR.

From the outset, the Proposed Project incorporates environmentally beneficial improvements that are specifically intended to avoid, offset, and mitigate anticipated adverse effects. As noted above, except as specified in the SA, the settling parties, including the regulatory agencies, believe that the measures contained in it satisfy their statutory, regulatory, or other legal requirements for the protection, mitigation, and enhancement of natural resources, water quality, recreation, and cultural and historical resources affected by the Oroville Facilities. Chapter 5.0 of the DEIR analyzes the

Proposed Project (the SA) and confirms that there would be no significant unavoidable adverse environmental impacts.

The FERC Staff Alternative includes most of the measures in the Proposed Project and additional measures that in some instances were considered by FERC Staff to be more protective of environmental resources than the Proposed Project, while not including measures outside FERC jurisdiction. This alternative represents a feasible option for a new Oroville Facilities license in that FERC included it within its own DEIS and FEIS completed for the Relicensing process.

Finally, the No-Project Alternative is part of a reasonable range of alternatives in the DEIR that provides for informed decision making because it evaluates continuing Oroville Facilities operations consistent with the terms of the existing license. The No-Project Alternative would therefore not include many of the environmentally beneficial actions incorporated in the Proposed Project and the FERC Staff Alternative.

In summary, in the context of the FERC relicensing process, the Proposed Project, the FERC Staff Alternative, and the No-Project Alternative provide a reasonable range of potentially feasible alternatives with different impacts and benefits sufficient to promote informed public participation and decision-making.

With regard to Appendix B, while discussing costs associated with the Proposed Project, Section 4.4 of the FEIS states, “DWR would incur costs associated with measures listed in Appendix B of the Settlement Agreement that are not part of a potential Commission license.” As stated on page 8 of the FEIS, Appendix B commitments are considered “to be outside of the terms and conditions associated with a new license for the Project”.

Response C0005-14:

The alternatives evaluated in the DEIR include provisions for enhanced flood management (please see SA Articles A130, 131, and B103). Please see Responses to Comments C0005-6 and C0005-11. While FERC typically has jurisdiction over flood control operations as part of its licensing authority under Part I of the Federal Power Act, 16 United States Code (USC) 791 et seq., Congress specifically granted exclusive jurisdiction over flood control operations at the Oroville Facilities to the Secretary of the Army. In Section 204 of the Flood Control Act of 1958 (Public Law [PL] 85-500, 72 Stat. 297), an appropriation was made to contribute to the construction cost of Oroville Dam and Reservoir. This appropriation was made contingent upon an agreement between the State of California and the Department of the Army for operation of the dam for flood control benefits.

Subsequent to the Flood Control Act of 1958, the Federal Power Commission issued an Order Amending License for Oroville on January 22, 1964. In that order, Article 50 was added to the license, and provides that “operation of the project in the interest of flood control as provided in Article 32 of the license shall be in accordance with the rules and regulations to be prescribed by the Secretary of the Army pursuant to Section 204 of the

Flood Control Act of 1958." The Proposed Project does not include objectives that would alter flood control operations.

Response C0005-15:

As stated before, the DEIR identifies some of the articles included in the SA, including Article A130 (Flood Control), as agreements to develop plans and programs. Plan and program development do not typically result in environmental effects. Therefore, those plan and program development activities are not evaluated in the DEIR. SA Article A130 is the continuation of the flood management program as dictated by USACE. These operations are designed to attenuate flood flows and provide beneficial impacts for downstream communities and are included in all of the alternatives.

Response C0005-16:

Please see Responses to Comments C0005-6, C0005-11, and C0005-14.

Response C0005-17:

Flooding and flood control issues related to the Oroville Facilities that are subject to relicensing by FERC are addressed appropriately in the DEIR, Section 2.1.3. As noted, with flood storage space in Lake Oroville that varies from 375,000 af to 750,000 af, flood management remains one of the major benefits of Oroville Dam. In fact, during the 1997 flooding event noted in this comment, flood damages avoided by Lake Oroville operations were valued at more than $1 billion (United States Society on Dams 2004). The Oroville Facilities would continue to provide significant flood control benefits to downstream areas during the expected 50-year term of the new FERC license. Please also see Responses to Comments C0005-6, C0005-11, and C0005-14.

Response C0005-18:

DWR has determined that the existing analysis provided in the DEIR and referenced in Responses to Comments C0005-6, C0005-11, and C0005-14 is adequate under CEQA. Under all alternatives, the Oroville Facilities would continue to undergo scheduled safety evaluation throughout the life of the license. Pursuant to these programs, Oroville Dam is inspected annually by FERC and twice each year by DWR's Division of Safety of Dams. In addition, Oroville Dam is inspected every 5 years by an independent consultant approved by FERC under Part 12 of its regulations, as well as in accordance with the California Water Code. In these annual and independent inspections, Oroville Dam and appurtenant facilities have repeatedly been found safe and adequate for the dam's intended purposes, which include emergency spillway operations. Specifically, past Part 12 safety inspection reports have consistently found the dam and project facilities to be "well maintained and operated" (FERC 2005) and that the dam and principal impounding structures are in "good condition." Recent Division of Safety of Dams inspection reports all state: "From the known information and the visual inspection, the dam, reservoir, and the appurtenances are judged satisfactory for continued use" (DSOD 2001, 2002a, 2002b, 2002c, 2003, 2004, 2005a, 2005b, 2005c, 2005d).

Response C0005-19:

Thank you for your interest in the Oroville Facilities Relicensing Project. While your comment does not raise issues or concerns appropriate to the environmental analysis in the DEIR and thus no further response is necessary, your comment is a part of the permanent record for this Project and has been forwarded to decision makers for consideration.

Response C0005-20:

With the exception of minor maintenance issues, no significant concerns have ever been raised by FERC, the Division of Safety of Dams, or any federally mandated or State-mandated independent reviews regarding the adequacy, stability, or structural integrity of the emergency spillway. Recent FERC Part 12 and Division of Safety of Dams inspections have concluded that Oroville Dam and appurtenant structures are "well maintained and operated" and "judged satisfactory for continued use," respectively. In fact, inspection reports conducted at the high-water pool with water on the emergency spillway weir state that the "emergency spillway weir remains in good condition" (DSOD 2005b)[1] and that "the gate structure, the weir, chute, and emergency weir were all without major distress" (DSOD 1993). In addition, DWR recently reviewed the geologic conditions at the emergency spillway and concluded that the spillway is a safe and stable structure founded on solid bedrock that will not erode to an extent that comprises the stability of the emergency spillway or dam (pers. comm., Torres 2006).

Response C0005-21:

Please see Responses to Comments C0005-4 and C0005-5. While your comment does not raise issues or concerns appropriate to the environmental analysis in the DEIR and thus no further response is necessary, your comment is a part of the permanent record for this Project and has been forwarded to decision makers for consideration.

Literature Cited:

DSOD (California Department of Water Resources, Division of Safety of Dams). 1993. Inspection of Dam Reservoir in Certified Status. Periodic Evaluation of Oroville Dam. June 7, 1993.

DSOD (California Department of Water Resources, Division of Safety of Dams). 2001. Inspection of Dam Reservoir in Certified Status, Periodic Evaluations of Oroville Dam. June 13, 2001.

DSOD (California Department of Water Resources, Division of Safety of Dams). 2002a. Inspection of Dam Reservoir in Certified Status, Periodic Evaluations of Oroville Dam. January 29, 2002.

[1] See also DSOD 2005c: "The emergency spillway weir remains in good condition. Where water was against the weir, minor seepage was observed along the downstream toe and at the construction and lift joints. The seepage is said to be decreasing as the reservoir level goes down."

DSOD (California Department of Water Resources, Division of Safety of Dams). 2002b. Inspection of Dam Reservoir in Certified Status, Periodic Evaluations of Oroville Dam. June 18, 2002.

DSOD (California Department of Water Resources, Division of Safety of Dams). 2002c. Inspection of Dam Reservoir in Certified Status, Periodic Evaluations of Oroville Dam. November 18, 2002.

DSOD (California Department of Water Resources, Division of Safety of Dams). 2003. Inspection of Dam Reservoir in Certified Status, Periodic Evaluations of Oroville Dam. June 19, 2003.

DSOD (California Department of Water Resources, Division of Safety of Dams). 2004. Inspection of Dam Reservoir in Certified Status, Periodic Evaluations of Oroville Dam. January 20, 2004.

DSOD (California Department of Water Resources, Division of Safety of Dams). 2005a. Inspection of Dam Reservoir in Certified Status, Periodic Evaluations of Oroville Dam. February 8, 2005.

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FERC (Federal Energy Regulatory Commission). 2005. Oroville Dam FERC Part 12 Report 5 5.5. March 2005.

Torres, R. A., Deputy Director, California Department of Water Resources; letter to T. Yarnashita, Federal Energy Regulatory Commission, Project No. 2100-000. Filed January 12, 2006.

United States Society on Dams. 2004. The Benefits of Dams to Society. Site accessed August 4, 2004. URL = http://www.ussdams.org/ben_9903.html.

COMMENTS FROM THE BUTTE COUNTY AIR QUALITY MANAGEMENT DISTRICT

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W. James Wagoner
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Robert McLaughlin
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August 21, 2007

Henry Rick Ramirez
Program Manager, Oroville Facilities Relicensing
California Department of Water Resources
P. O. Box 942836
Sacramento, CA 94236-0001

Re: Draft Environmental Impact Review (EIR) for the Proposed Oroville Facilities Project, FERC Project No. 2100

Dear Mr. Ramirez:

The Butte County Air Quality Management District (District) reviewed the EIR for the proposed Oroville Facilities Project with respect to air quality and submits the following comments. Please note the District was not on the EIR distribution list and was not notified of the project until July 17, 2007. Please add the District to the distribution list. C0006-1

1. Butte County is currently designated as a state and federal non-attainment area for ozone and a state non-attainment area for fine particulate matter (both PM2.5 and PM10). Also it is anticipated that the County will be designated as a federal non-attainment area for PM2.5 in December 2007. As such the District recommends incorporating feasible mitigation measures into the proposed project to reduce the potential air quality impacts. If on-site mitigation measures are not deemed feasible off-site mitigation may be available. Please consult the District regarding potential off-site mitigation measures. C0006-2 C0006-3
2. Page 5.12-4 – The District does not currently have a PM10 air quality plan. C0006-4
3. Page 5.12-5 – The District has quantitative thresholds for CEQA and NEPA projects. The District Governing Board adopted thresholds of significance in the Indirect Source Review Guidelines March 20, 1997, revised October 1997. In general, projects which have the potential to emit 25 lbs per day (Level B) of reactive organic gases (ROG) or oxides of nitrogen (NOx), or 80 lbs per day of PM10 emissions require Best Available Mitigation Measures (BAMM) tailored to the type of project being proposed. The Level B threshold is also used for District permitting activities requiring Best Available Control Technology (BACT). Projects which have the potential to emit 137 pounds per day or greater (Level C, 25 tons per year) of ROG, NOx or PM10 are considered significant and must reduce the air quality impacts below Level C by applying feasible mitigation. C0006-5
4. Page 5.12-5 – Please provide the District with a copy of the URBEMIS air modeling results including the input and output data justifications for review and comment. C0006-6

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C0006

5. Short- term Construction Impacts – Based on the "sample" project emission estimates provided in Chapter 5, the District considers short-term construction impacts to be potentially significant. The District recommends incorporating the District approved list of *Fugitive Dust Mitigation Measure* (attached) into the proposed project to prevent and reduce dust emissions. C0006-7
6. Long-term Operations - Based on the "sample" project emission estimates provided in Chapter 5, the District considers long-term operational impacts to be potentially significant. The District recommends incorporating feasible mitigation measures into the proposed project to reduce the potential air quality impacts. If on-site mitigation measures are not deemed feasible off-site mitigation may be available. Please consult the District regarding potential off-site mitigation measures. C0006-8
7. Cumulative Impacts - The District Air Quality Attainment Plan (AQAP) does address the State ozone standards, but is not based on an attainment demonstration; rather, it commits the District to all feasible control measures. The 2006 AQAP anticipates reductions of reactive organic gases and nitrogen oxides from the measures in the plan but concludes that the measures will not lead to attainment of the state ozone standards. Consequently, compliance with the AQAP, by itself, does not assure that a project will avoid significant cumulative air quality impacts. C0006-9

The District appreciates the opportunity to comment on the proposed project. If you have any questions, please contact the District at 530-891-2882.

Sincerely,

Gail Williams
Senior Air Quality Planner

Attachment: Fugitive Dust Mitigation Measures

File No 3452

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Butte County Air Quality Management District

Compliance Advisory Bulletin –

FUGITIVE DUST MITIGATION MEASURES

The following specific mitigation measures are recommended by the Butte County Air Quality Management District (District). ***These measures apply to all projects with the potential to emit fugitive dust during land development activities.***

The intent of the mitigation measures is to ensure adequate dust control during all phases of project construction and operation. Compliance with the mitigation measures should minimize the potential for violations of District Rule 200, "Nuisance" and Rule 205 "Fugitive Dust". Additional requirements for fugitive dust control may be required if deemed necessary in order to comply with local rules and regulations.

The following mitigating measures should be employed to prevent and control dust emissions:

Land Clearing/Earth Moving:

Water shall be applied by means of truck(s), hoses and/or sprinklers as needed prior to any land clearing or earth movement to minimize dust emission.

Haul vehicles transporting soil into or out of the property shall be covered.

A water truck shall be on site at all times. Water shall be applied to disturbed areas a minimum of 2 times per day or more as necessary.

On-site vehicles limited to a speed of 15 mph on unpaved roads.

Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours. The telephone number of the District shall also be visible to ensure compliance with BCAQMD Rule 200 & 205 (Nuisance and Fugitive Dust Emissions).

Visibly Dry Disturbed Soil Surface Areas:

All visibly dry disturbed soil surface areas of operation shall be watered to minimize dust emission.

Paved Road Track-Out:

Existing roads and streets adjacent to the project will be cleaned at least once per day unless conditions warrant a greater frequency.

Visibly Dry Disturbed Unpaved Roads:

All visibly dry disturbed unpaved roads surface areas of operation shall be watered to minimize dust emission.

Unpaved roads may be graveled to reduce dust emissions.

A water truck shall be on site at all times. Water shall be applied to disturbed areas a minimum of 2 times per day or more as necessary.

On-site vehicles limited to a speed of 15 mph on unpaved roads.

Haul roads shall be sprayed down at the end of the work shift to form a thin crust. This application of water shall be in addition to the minimum rate of application.

Vehicles Entering/Exiting Construction Area:

Vehicles entering or exiting construction area shall travel at a speed which minimizes dust emissions.

Employee Vehicles:

Construction workers shall park in designated parking areas(s) to help reduce dust emissions.

Soil Piles:

Soil pile surfaces shall be moistened if dust is being emitted from the pile(s). Adequately secured tarps, plastic or other material may be required to further reduce dust emissions.

NOTICE: *Violations of District Regulations are enforceable under the provisions of California Health and Safety Code Section 42400, which provides for civil or criminal penalties of up to $25,000 per violation.*

RESPONSES TO COMMENTS FROM THE BUTTE COUNTY AIR QUALITY MANAGEMENT DISTRICT

Response C0006-1:

BCAQMD has been added to the distribution list for the Oroville Facilities EIR. The comment does not raise issues or concerns specific to the environmental analysis presented in the DEIR.

Response C0006-2:

Please see Chapter 2.0, Section 5.12, of this FEIR for revised text that fully addresses impact thresholds, emissions analyses, and measures to reduce Project-related emissions of fine particulate matter 2.5 micrometers or less in diameter ($PM_{2.5}$).

Response C0006-3:

Dust control measures were included in the DEIR and additional measures have been incorporated into Chapter 2.0, Section 5.12, of this FEIR. These on-site measures would reduce impacts from emissions of $PM_{2.5}$ and respirable particulate matter 10 micrometers or less in diameter (PM_{10}) to a less-than-significant level. No off-site mitigation measures are necessary.

Response C0006-4:

As noted in Chapter 2.0, Section 5.12 (Air Quality) of this FEIR, this error has been corrected.

Response C0006-5:

Section 5.12, Air Quality, provided in Chapter 2.0 of this FEIR incorporates a discussion of the Indirect Source Rule and BCAQMD's Level A, B, and C thresholds, and provides measures to reduce impacts of emissions to a less-than-significant level.

Response C0006-6:

The requested air modeling results will be provided to BCAQMD for review and comment. The commenter identifies an issue that is outside the scope of the EIR; therefore, no further response is necessary.

Response C0006-7:

Section 5.12, Air Quality, in Chapter 2.0 of this FEIR includes quantitative estimates of construction emissions and compares the data with significance thresholds based on BCAQMD's Indirect Source Review Guidelines and other appropriate sources. None of the anticipated short-term project-related emissions would exceed the significance thresholds. The potential impact from fugitive dust during construction was addressed in the DEIR (pages 5.12-17 and 5.12-23), and measures to control fugitive dust were

included in Mitigation Measure 5.12-c of the DEIR. In Chapter 2.0 of this FEIR (Section 5.12, Air Quality), the measures have been revised to be consistent with the BCAQMD-approved list of dust control measures. There is no change to the impact conclusion presented in the DEIR.

Response C0006-8:

As described in Chapter 2.0, Section 5.12 (Air Quality) of this FEIR, a quantitative estimate of long-term operations emissions is provided to compare these data with significance thresholds based on BCAQMD's Indirect Source Review Guidelines and other appropriate sources. Long-term emissions from Project operations would not exceed the significance thresholds, nor is the impact of the emissions potentially significant. However, standard measures to further reduce emissions have been included in this FEIR (see Chapter 2.0, Section 5.12).

Response C0006-9:

The analysis of cumulative impacts provided in the EIR does not rely on compliance with the Air Quality Attainment Plan to evaluate and address cumulative impacts. The analysis provided in Chapter 6.0 of the DEIR adequately demonstrates that Project-related emissions of reactive organic gases and oxides of nitrogen would not be cumulatively considerable.